PERIODICAL ROOM
GENERAL LIBRARY
UNIV. OF MICH.

JAN 21 1935

Educational SCREEN

COMBINED WITH

Visual Instruction News

CONTENTS

Mounted Pictures as an Aid to Teaching

The Cinema in Surgery

Visual Education in FERA Work

Teaching Progressive Methods in Science Problems

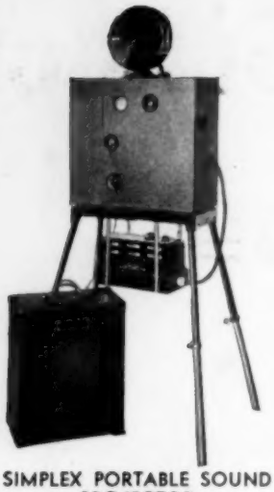
Single Copies 25c
● $2.00 a Year ●

JANUARY 1935

PE

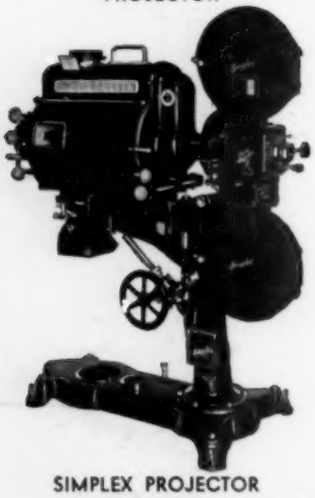
A *Simplex* PROJECTOR FOR EVERY REQUIREMENT

TRADE MARK REG'D.



SIMPLEX PORTABLE SOUND PROJECTOR

SIMPLEX - ACME SOUND PROJECTOR



SIMPLEX PROJECTOR

A rapidly increasing realization of the value of motion pictures in educational work has made it obvious that motion picture equipment must keep pace with the greatly enlarged programs, vast facilities and splendid schools now provided by progressive communities.

Motion pictures are merely a mechanical aid to assist in educational work and their value can be no greater than the ability of those who make the selection of films and supervise their showing.

We are the oldest and largest manufacturers in the world of standard, professional motion picture equipment and the only makers of a complete line of 35 mm. motion picture projectors used in thousands of theatres throughout the world. Simplex Projectors and Simplex-Acme Sound Projectors are also used in a large number of universities, colleges, schools, churches and public institutions. Simplex Projectors meet the exacting requirements of government specifications as well as many great manufacturing companies.

Our wide experience enables us to understand the needs of the non-theatrical or educational field where, in many instances, there is no technical advisor to guide in the selection of equipment. The complete line of 35 mm. projectors we manufacture places us in a position to impartially advise regarding the kind of equipment best suited to each particular type of installation.

SIMPLEX PORTABLE SOUND PROJECTOR

For Universities, Colleges, Schools, Churches, etc

SIMPLEX-ACME SOUND PROJECTOR

For smaller Theatres and large Auditoriums

SIMPLEX PROJECTORS

Adapted for Sound Equipment in the larger Theatres

We will be pleased to send full information regarding any of our motion picture projectors and such inquiry involves no obligation whatever. We realize that the installation of motion picture equipment requires serious and long consideration and are, therefore, pleased to supply information for institutions with the full realization that decisions cannot be quickly made.

INTERNATIONAL PROJECTOR CORPORATION, 88-96 Gold St., N. Y.

These Talking Pictures fit right into High School science courses

The frog has three ways of protecting his protruding eyes.

The phenomenon of hearing demonstrated graphically.

Time-lapse photography clearly pictures the growth of roots.

Pebbles and boulders wear potholes in the rock beds of swift streams.

Erpi Picture Consultants offers 4 Series of Educational Talking Pictures as effective aids to science teachers

All of these films have been produced definitely for educational purposes. A continuous survey of the high school curriculum insures complete integration with classroom work, each film being based upon a unit of instruction which follows the best practices.

1. Biology: Eighteen talking picture subjects providing pertinent materials to be used in teaching the modern biology course.

2. Physics and Chemistry: Six talking pictures for use in teaching these subjects in senior high schools.

3. Botany: Eight talking picture subjects revealing life processes and structures of plants, comprising materials otherwise impossible to present.

4. General Science: Twenty talking picture subjects which orient pupils in the field of science.

In addition to these four series of pictures, Erpi Picture Consultants also offers series of subjects dealing with Zoology, Teacher Training, Nature Study for Primary Grade, Music Appreciation, and Parent-Teacher Programs.

Write for further information about these professionally produced talking pictures and accompanying texts for use in your educational program.

INSTRUCTIONAL FILMS PRODUCED UNDER THE SPONSORSHIP OF LEADING EDUCATORS, UNIVERSITIES AND INSTITUTIONS

Erpi Picture Consultants

Incorporated

250 West 57th Street, New York, N. Y.

SUPER HI-POWER

750 WATT VICTOR 16MM SILENT AND SOUND ON FILM

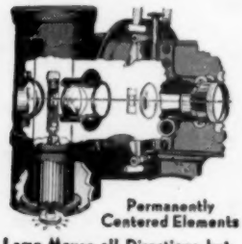
TRANSCENDING all previous VICTOR projection achievements, these NEW 750 WATT SUPER HI-POWER VICTORS have skyrocketed 16 mm ILLUMINATION and PERFORMANCE Standards to amazing new heights. They embody valuable new MECHANICAL and OPTICAL INNOVATIONS that are FAR IN ADVANCE of anything ever before employed in 16 mm manufacture . . . . insuring finer results.

Best news of all . . . . these QUIETER, COOLER, SIMPLER, MORE POWERFUL units are typical VICTOR VALUES at these "COMMON SENSE" prices—Silent Model 20, $172.50; Sound-on-Film, $425.00 and $540.00! Write for literature. Your dealer can arrange demonstrations. Your new projector, to be the finest, *must* be a VICTOR!

VICTOR ANIMATOGRAPH CORPORATION
DAVENPORT, IOWA, U. S. A.

242 W. 55th St., NEW YORK CITY - 188 W. Randolph St., CHICAGO - 650 So. Grand, LOS ANGELES

● **GREATER SCREEN BRILLIANCY thru Greater Utilization of Light . . .** Through persistent research and experimentation, Victor has developed an optical system which is super-efficient in collecting light rays and transmitting them to the screen. This advance in light utilization gives unprecedented screen results with 300, 400 and 500 watt lamps, as well as with the powerful 750.



Permanently Centered Elements
Lamp Moves all Directions but Filament Remains Parallel

SUPER HI-POWER optical elements are *precision-spaced* and *permanently centered* on optical axis to insure maximum efficiency with all lamps at all times. By providing a *simple lamp-shifting device* which permits infinitesimal adjustments and perfect alignment of the filament with optical axis, Victor avoids the common, efficiency-reducing practice of adjusting reflector to compensate for misalignment of filaments in new lamps. Brighter pictures and a clear, even field always!

● **4-in-1 CONTROL for Starting, Stopping, Reversing and "Still" Projection . . .** When lever is positioned for "stills," a transparent heat-absorbing lens separates lamp and film, giving a brilliant image without danger of blistering film. Slightest pull of film on Victor's famous Film Trips automatically "kicks" lever out of operating positions, thus preventing damage in film emergencies. Easier, more convenient operation . . . . greater economy and *lasting* satisfaction!

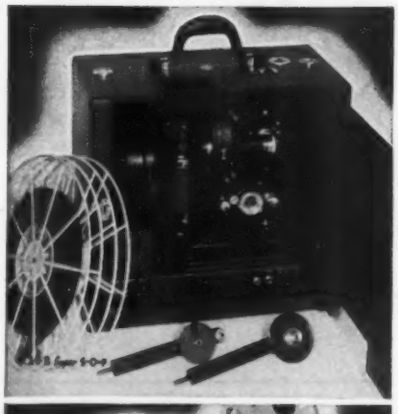
The ULTIMATE in EASY Manipulation

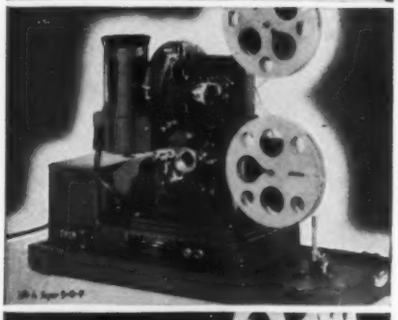
NOTE: Illustration shows Silent Projector Control. On Sound Projector Top Position gives 24 frame Sound Speed; Bottom Position, Standard Silent Speed.

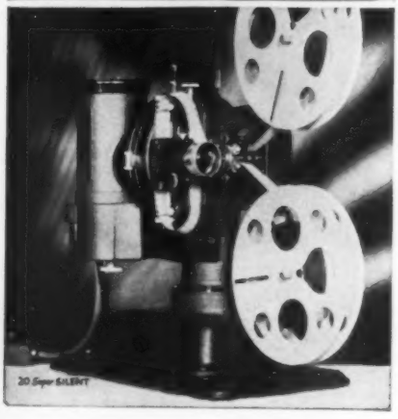
● **"SPIRA-DRAFT" VENTILATION Increases Lamp Efficiency and Life . . .** Spiral action of the forced draft around lamp, and between walls of the Super Hi-Power Lamp. **House promotes EVEN cooling of entire lamp surface. Our laboratory tests show that this eliminates usual tendency of 750 watt bulb to blacken at "hot spots" in front and back of filament, as a result of which this exclusive EVEN-COOLING process prolongs lamp life, insures *lasting illuminating* efficiency and keeps the equipment comfortably cool, SAFE and efficient at all times. Better Performance . . . . Greater Economy!**

Air-spaced Walls
Spiral Aeration

● PLUS OTHER IMPORTANT NEW REFINEMENTS and all famous Patented VICTOR Features such as POSITIVE 4-POINT FILM PROTECTION, ADJUSTABLE SHUTTLE, ETC.







Be Sure Yours is a VICTOR

Educational Screen

Combined with

Visual Instruction News

JANUARY, 1935

VOLUME XIV NUMBER 1

CONTENTS

Editorial 4

Mounted Pictures as an Aid to Teaching.
Adele M. Outcalt 5

The Cinema in Surgery. Dr. Jacob Sarnoff 9

Visual Education in FERA Work. Raymond Thompson 11

News and Notes. Conducted by Josephine Hoffman 12

Film Production Activities. Conducted by The Staff 13

Department of Visual Instruction Notes.
Conducted by Ellsworth C. Dent 14

The Film Estimates 16

Among the Magazines and Books.
Conducted by Marion F. Lanphier 17

School Department.
Conducted by Dr. F. Dean McClusky 19

Among the Producers 26

Here They Are! A Trade Directory for the Visual Field 28

THE EDUCATIONAL SCREEN, Inc.

DIRECTORATE AND STAFF

Herbert E. Slaught, Pres. — Stanley R. Greene
Nelson L. Greene, Editor — R. F. H. Johnson
Ellsworth C. Dent — Marion F. Lanphier
Evelyn J. Baker — F. Dean McClusky
Josephine Hoffman — Stella Evelyn Myers

Contents of previous issues listed in Education Index.

General and Editorial Offices, 64 East Lake St., Chicago, Illinois. Office of Publication, Morton, Illinois. Entered at the Post Office at Morton, Illinois, as Second Class Matter.

Copyright, January, 1935 by the Educational Screen, Inc.

Published every month except July and August.
$2.00 a Year (Canada, $2.75; Foreign, $3.00) Single Copies, 25 cts.

Editorial

WITH this issue THE EDUCATIONAL SCREEN begins Volume XIV. For a magazine in the visual field to survive thirteen birthdays is necessarily some sort of a record, the longest life-span of any of our six predecessors having been but a half dozen years. It is a further satisfaction that, although the thirteen years have included the five-year depression period when magazine mortality ran high, THE EDUCATIONAL SCREEN lives on in better health than ever under the same name, same management, and the same faith. The changing times are unmistakable promise of still better things in 1935. We confidently expect to make Volume XIV the best to date.

IN THE spring of 1934 much stirring publicity was achieved through press and platform regarding the plans of the National Council of Teachers of English and others to insert in High School curricula new courses to teach "appreciation of motion-pictures" to the rising generation. Manuals were to be prepared by qualified educators on masterpieces of the screen. It was more than hinted that this material in systematic use in classrooms was the solution of the movie problem. One had only to teach young people why a good motion picture is good—by seeing it and studying the manual thereon—and why a bad motion picture is bad—presumably by seeing it and discussing it in class without a manual. This accomplished, said young people would thereafter attend only good pictures and scrupulously boycott the bad. Unfortunately, from the Garden of Eden down, knowledge of good and evil has proved far from a panacea for unwise human conduct. High intelligence and full maturity still frequently prefer coffee to milk, night-clubs to church socials, bedroom-farce to Shakespeare, sensation to serious thought. With healthy, normal youth the preference is frequently stronger still.

We emphatically approved, of course, whatever would develop keener, deeper appreciation and enjoyment of good pictures, much as youth appreciates them already. We deplored, however, any program that would increase the exposure of youth to the trash of the screen. Assorted reactions greeted our remarks. Many glowed in agreement. Some were simply scathing. One district chairman, heading a committee making manuals under the National Council, informed us forcibly that "appreciation could be taught", that many teachers "knew motion pictures" and were qualified to write and use such manuals, and finally that THE EDUCATIONAL SCREEN had "betrayed the good cause." We agreed earnestly with the first two declarations and could only regret and deny the third. But the mystery remained, and still remains, as to how a qualified committee could possibly have selected that grotesque screen absurdity, "Alice in Wonderland", as the subject for its skillfully done manual. How could they have failed to recognize that lumbering, plaster-of-paris monstrosity as an unconscious outrage upon Lewis Carroll's delicate work of art? How could they bring themselves to offer to youngsters such a devastating antidote to the delightful ensemble of dream whimsy and subtle charm already existing in their young imaginations, built by themselves from the magic of Carroll's pages? On the other hand there can be nothing but praise for such classroom material as the study guides on "Little Women" (by Abbott), "Treasure Island" (by Lewin), "Great Expectations" (by Barnes), "The Little Minister" (by Bauer), published by or for The National Council of Teachers of English. Such work should continue for all screen masterpieces from classics or near-classics—happily appearing in greater numbers than ever before.

There is one disturbing possibility. The industry of course approves the work of The National Council because it increases attendance on such films, a most desirable result for all concerned, to be sure. But what prevents the industry from promoting attendance on any film by preparing its own "manual"? In November last, the Motion Picture Producers and Distributors of America announced that they had produced their own "Teacher's Manual" and "Student's Study Guide" for "Anne of Green Gables"—which seemingly ought to have been done by the Council. And a film of very dubious classroom suitability, DeMille's "Cleopatra," has been manualized and an elaborate campaign is on. If the schools accept it as readily as the publications of the National Council, the gate is wide open. Do American schools want their classroom materials prepared by the movie industry?

ALFRED W. ABRAMS

IT WOULD be difficult to name a more commanding figure in visual instruction than A. W. Abrams, whose life-work has contributed so richly to educational progress. He knew pictures, their power, their use, and above all knew how to move, win and train others—teachers, schools, school-systems—to use with increasing joy and maximum efficiency that great visual aid, the lantern slide. We quote at length from the Bulletin of the University of the State of New York.

A notable service of 44 years in public education in this State terminated on December 1st, 1934, when Alfred W. Abrams retired as Director of the Visual Instruction Division of the Department.

Mr. Abrams was graduated from Cornell University in 1891. Prior to that he had taught one year in a rural school and after graduation he was principal of the Oneonta High School for four years and superintendent of schools at Ilion for seven years. He came to the State Education Department as inspector of schools in 1906, and became Director of the Visual Instruction Division in 1909.

On April 1, 1934, Mr. Abrams completed 25 years of service as the head of the Visual Instruction Division. During these 25 years he has developed the use of screen pictures for regular class instruction in schools throughout the State. When he was appointed head of the Division in 1909 by the late Commissioner Andrew S. Draper the State Education Department was circu-

(*Continued on page* 8)

Mounted Pictures as an Aid to Teaching

By ADELE M. OUTCALT
Garfield School, San Diego, California

THE "Flat Picture," as it is unfortunately termed in Visual Education nomenclature, may not be as effective as some of the newer and more expensive "aids," but it still holds and may always hold an important place in our teaching procedure. This is, of course, partly due to the abundance and availability of pictures of all kinds; magazines, illustrations, photographs, post cards, prints of all kinds are easily gotten and are not difficult to prepare for use in the classroom. Pictures not only supplement reading material, but occupy a distinct place of their own. They provide the raw material for imagery. What erroneous ideas are at times received from reading when our imagination has nothing with which to construct a mental image! The picture not only provides the raw material but corrects wrong impressions and classified concepts. It is well if the correct impression can be given before wrong mental images have been formed.

Sources of Pictures

In our larger cities which have adequate Visual Education Centers, teachers are fortunate in being able to draw upon them for necessary pictures as aids to teaching; however, even our well equipped centers cannot supply all the demands, so it is advisable that schools and teachers themselves have their own supply of pictures to draw upon. In smaller towns and rural sections where no Visual Aid Center is at hand, the collecting and caring for pictures becomes a necessity.

The choice is of greatest importance. At first the collectors will take anything available, but soon they discard those pictures which do not come up to a given standard. The following criteria may be set up in choosing pictures:

1. Will the picture illustrate some specific phase of school work?
2. Is the picture an adequate representation or expression of what it is intended to convey?
3. Is the quality of the picture such that it is worth preserving (in respect to paper, printing, photography, etc.)?
4. Is it suited to the age and grade of the children for whom it is selected?

The world is at present full of pictures. Good picture material can be had at low cost or at practically no cost. Magazines can be secured from many homes; children can be encouraged to bring them. The following offer the best materials: National Geographic, Asia, Travel Magazine, Japan, Nature Study Magazine, Rotogravure Section of New York Sunday Times, etc. Old book stores sell old numbers of magazines at low cost. Old books frequently have valuable illustrations that can be cut out; picture postals are sometimes of excellent quality; photographs and souvenirs of travel offer materials for a collection. The smaller pictures are most valuable if a Balopticon is available. Literature from railroad and steamship companies and Chambers of Commerce often contains fine pictures for geography works; the large posters issued by these travel companies are frequently very beautiful and true in their conception and interpretation of a landscape or architectural representation. If money is available, excellent prints, especially for art appreciation, can be obtained from the following sources:

Brown-Robertson, Chicago, New York. Museum Prints (8 x10), Seeman Prints (7x9), Color Miniatures (3½x4½), Historic Design (4x6).

Art Extension Press, Westport, Conn. Artext Prints (8x10), Artext Juniors (2½x3½), Artextia Print (16x20).

Museum of Fine Arts, Boston, Mass.

The University Prints, Newton, Mass. Color Prints (5½x8).

The Perry Pictures Co., Malden, Mass. History (Black & White), Art.

Andolian Society. Medici Prints.

P. P. Capronia Brothers, Inc., Boston, Mass. Casts.

Victoria and Albert Museum, London, England. Pictures and Picture Books.

Vera Jones Bright, San Francisco, Calif. Large color prints of Old or Modern Masters.

The Metropolitan Museum of Art, New York. Color Prints, Black and White Photographs.

Photographic History Service, Hollywood, Calif. Series of pictures for teaching history and related social subjects. Twelve units, each comprised of fifteen 8"x10" photographs, or slides, reproduced from "stills" of historical motion pictures.

Mounting and Filing

The next step in the securing of a Picture Library is to care for the pictures properly. Unless they are adequately mounted, classified and filed, they are likely to have only an ephemeral existence; moreover a proper mount enhances the value of the picture and placement in a well arranged file makes it available when needed.

A uniform size of mount is advisable; however, the size of the mount will be determined by the nature of the file. If pictures are to be placed in folios on shelves, the mounts can be adjusted to the size of the shelves, or vice-versa—shelves can be built to accommodate the size of the folios. Letter files can be substituted for the folios and numbered consecutively. The ideal method for filing pictures is vertical filing in a case of drawers of

wood or metal; a file with ball bearing or roller transmission will insure greater ease in pulling out the drawers. These files usually contain four drawers and will carry from five thousand to ten thousand pictures according to the thickness of the mount; the movable compressor contained in each drawer helps to hold the pictures in an upright position. Small collections of pictures can be filed in an inexpensive small vertical filing case which contains no compressor. It will hold a limited number of pictures, but several of these cases can be arranged on shelves by subjects, making reference easy.

Having decided on the size, either letter size or the legal or cap file size, (i. e. 10 inches by 15 inches) one can proceed with the mounting. The mounts should be of heavy, tough paper of neutral shade; thick cardboard is more durable but fills the file too rapidly.

If a dry mounting press can be secured, much time and effort can be saved. This instrument is an electrically heated press in which the pictures and the mount are inserted with a sheet of gum tissue between. Under the combined pressure and heat the tissue melts and acts as an adhesive. The more common method of mounting is the paste mounting. Measure the position desired for the picture before mounting; allow a space along the long side of the mount for the title and accession number of the picture. The paste is thinned and applied to the mount with a brush. A rolling pin is used for pressure on the mount side as the paste is less likely to smear. A more satisfactory and lasting piece of work is accomplished by first covering cardboard mount with paper of appropriate shade before mounting the picture. A passepartout of linen tape about ¾ of an inch wide makes a secure finish for the picture.

Filing

In order to facilitate finding a picture, a system of index guides is indispensable. The guide cards separate the contents of the file according to subjects. For the legal size filing case the guide cards should be 10" x 15" exclusive of the half inch in which the subject headings are designated. The guides should be third cut; i. e. the tabs should be equal to a third of the length of the guide so that there are left tabs, center tabs, and right tabs. The names of the subject headings are then put on the tabs in alphabetical order, using the three positions in rotation. For a school the subjects could well follow the curriculum divisions rather than adopt the Dewey Decimal System or the like. For example: Social Studies — Art — Nature — Literature — Music, etc. Under these large divisions could come any number of subject headings. These should be concrete, exclusive and specific. For example, such a subject as Geography of North America would be too general; it would be better to say:

North America—Physiography
North America—Plant Life
North America—Races
North America—Animal Life, etc.

A folder containing a copy of subject headings with their accession numbers kept in the front of the file is convenient for reference.

Using Pictures in the Classroom

Social Studies. We think of the use of pictures particularly in connection with the social studies, geography, history and civics, but we find them valuable also in teaching literature, music, nature study and above all, art. In teaching the social studies the picture is almost coequal in importance with the reading material. Through an attractive pictorial representation the young child first gets his knowledge of places and things not in his immediate environment. Who does not remember the joyful hours spent as a child pouring over a picture book that fired the imagination! The writer recalls particularly a copy of the old "Orbis Pictus" full of purely factual material and yet fascinating because of its variety and its true depiction of places and peoples. Such experiences are second only to the contact with the places or things themselves. The experience becomes more vivid if accompanied by the explanation of an understanding adult, either the parent or the

Courtesy of Photographic History Service
Plate No. 11 Vitalizing "The Vikings"

teacher. She must be thoroughly familiar with the picture or pictures presented. Opportunity must be given to the children to study the pictures and to derive from them all that is possible. They are then put aside and a discussion brings out all that has been learned from the observation of pictures. The pictures are referred to from time to time if there are differences of opinion. Comparison of descriptive material of some place or objects and the picture

may bring out interesting differences or may strengthen the impression made by either.

A picture may be used in connection with the solution of a problem. For example—the question may be asked—Why are the Swiss engaged in dairying?

Courtesy of Santa Fe Railway

On Tonto Trail, Grand Canyon National Park

A study of a picture of the Swiss Valleys may lead to the answer; pictures thus clarify thinking. Pictures may sufficiently stimulate the imagination and arouse the emotions of children to create a desire for expression of some kind. They may wish to produce landscapes like the ones seen in pictures. A historical picture may arouse the desire to dramatize the event depicted. In a classroom some very excellent pictures of the life of Columbus had been studied; a series of tableaux and scenes were arranged for presentation in an assembly program which were derived from the picture study.

Art. It is quite inconceivable to teach art or appreciation of art without a supply of good reproductions of great masterpieces in the various branches of Art expression; in architecture, sculpture and the graphic arts. The writer had the opportunity as a child to see frequently a collection of steel engraved copies of the paintings in one of the great European galleries. She feels that this not only familiarized her with many of the world's famous pictures but directed her taste and interest in art for all time. I am glad to say that she was not subjected to any so called "picture study." Marion Louise Israel has discussed the use of pictures for appreciation excellently in the EDUCATIONAL SCREEN, November and December, 1931. She says "hang the picture on the wall and let it accomplish its silent work. Your work is done when you have selected a picture appropriate to a given purpose and to the capacities of the class, and hung it effectively." She calls particular attention to care in hanging the picture. A fine picture is sometimes placed on a bulletin board in the midst of distracting notices, etc. It should be isolated and it should be hung low enough for children to look straight into the picture.

A frame is always an addition to a picture. A single frame having a removable back held in place by turn buttons can be used repeatedly for pictures of the same size and mounting. If the pictures of some artist are studied and it is desirable to bring out certain characteristics doubtless a discussion of these is necessary. A number of reproductions of the same picture in the hands of the children helps in the study of detail.

Colored reproductions of pictures are generally considered preferable. In a study of the colored picture by N. P. MacLean, EDUCATIONAL SCREEN 1930,—results show that the colored picture is more valuable for certain subjects, particular "scenery, decoration, effects, materials and costumes" while in "architectural details—color is of less value."

The observation of a fine picture frequently arouses emotions that lead children to fine expression in thought and feeling. Teachers have been able to catch these expressions and have found them to have poetic value. The study of pictures—particularly those having dramatic value, may lead to reproducing them in tableaux form. In a school where such study has been pursued, the following pictures were used as tableaux for an assembly program: Age of Innocence (Sir Joshua Reynolds), Masefield Children (Sir Joshua Reynolds), Pilgrims Going to Church (Boughton), The Pottery Maker (Couse), Girl Spinning (Millet), The Gleaners (Millet), The Boyhood of Sir Walter Raleigh, Spring Song (Glücklich). Large frames were constructed with lighting arrangement on the inner side. Appropriate back drops were designed and painted by the children. Pictures had to be chosen that did not entail too great an expense for costuming. A child announcer told something of the artist and of the significance of the picture.

Nature Study. Here again the picture is of great assistance. A bird may be observed even with an opera glass, but detail of coloring and marking cannot always be determined; the accurate picture (which can be procured from the National Audubon Society, New York) supplies these. The picture acts as a check on observation. A fine representation, photographic or otherwise, of flowers, birds, rocks, butterflies, is invaluable if the original is not available. Such pictures also help to interpret the natural object and lead to greater appreciation.

For Nature Study on Birds

Children's Collections

While the use of pictures in the class is of great value—a still greater service may be rendered to children by encouraging and helping them to collect and mount pictures themselves. Such an individual project may become a life time hobby and what is more important than to lead children to discover hobbies! A boy may begin by collecting ship pictures; another may be interested in architectual representations; another in landscapes. A collection of all kinds of subjects may be made and later classified as to subjects or under countries according to the nationality of the artist. An extensive collection may even have a number of pictures by individual artists. The teacher may encourage the making of booklets with the pictures mounted in them; care must be exercised to see that the pictures are well trimmed and carefully mounted; here is excellent opportunity for training in judgment as to placement and choice of mount, etc.

A contest in making picture collections is an incentive to children; such a contest was carried on in a California County under an able leader in connection with the Fine Arts Gallery. Announcements were sent to the various schools stating the kind of pictures to be chosen (they were all to be by American artists). The size of the mounts and the manner of binding them was designated and the time set when the collections had to be turned in. All collections were exhibited and judges decided on the best and awarded ribbon prizes. Many children took advantage of this contest and developed a genuine love and interest in pictures through the activity.

Influence of Pictures on the Child

The influence of pictures on children is something that is difficult to test or measure. Doubtless the influence is frequently more far reaching than we think. The following story at least illustrates this point. A retired sea captain who had grown to feel that the occupation of a seaman was undesirable, decided that his three sons should not become sailors. Every effort was made to carry out his decision. In spite of this all three sons took to the sea. A friend asked the sea captain how he accounted for this seeming perversity on the part of his sons. The captain answered by pointing to a picture which hung over the mantel piece in the dining room and which had hung there during the lifetime of the three boys. The picture represented a fine three-masted ship under full sail. The silent appeal of the handsome vessel had been stronger than the wishes of the parents.

Alfred W. Abrams

(*Continued from page* 4)

lating slides which were used for the most part for illustrated lectures, chiefly travelogs. Such pictures at that time were a novelty and served a useful purpose for mass instruction and entertainment. The use of them, however, had no direct relationship to the work of the schools. Loans of slides then totaled fewer than 50,000 a year.

Under the direction of Mr. Abrams the Visual Instruction Division has developed the extensive use of screen pictures in the classroom as a basal means of instruction. Mr. Abrams formulated a plan of registering classes in certain subjects and grades which have standard lantern equipment and are taught through a systematic use of the state slides. The number of such classes thus registered has steadily increased year after year. The value of negatives, slides and other equipment of the Division has increased to about a half a million dollars and the loans of slides now total about a million and a quarter a year.

The principles governing Mr. Abrams' administration of the Visual Instruction Division were rooted in his fundamental philosophy of education. He believes that real education consists in the development of habits of observation and interpretation, not merely in the acquisition of items of information. Hence his insistence that the use of visual aids in the classroom should be so conducted as to make the pupil an active participant. He explained this in his annual report for 1933, when he wrote:

The mere showing of pictures has little positive educational value and may engender the habit of observing superficially . . . One of the teacher's important functions is to train pupils to observe and interpret this means of expression. It may be said that a person gets from a picture only what he puts into it through recall of knowledge previously gained, the recognition of new relationships through measurements, comparisons and judgments as to purposes and utilization, in short, through efforts to interpret it.

It was the logical result of this philosophy that Mr. Abrams should discourage the giving of "picture shows"—the rapid showing of a large number of slides with running comments from the teacher—and should continually stress the advantage of using a very few slides in a class period, with thorough analysis and discussion. It was this same reasoning which caused Mr. Abrams to consider the lantern slide unrivaled among visual aids, since the picture can be held on the screen as long as may be desirable for such discussion.

The Cinema In Surgery

By DR. JACOB SARNOFF
Brooklyn, New York

MAN'S first records were hewn in stone; then came the papyrus and brush; then paper, with pen and ink. In the ages of ancient Greek and Roman Civilization, great deeds were sculptured in marble; later they were portrayed in oil paintings or frescoes. In the early nineteenth century photography was invented, a method of instantaneous reproduction. But that was not enough. We must have sound reproduction. The phonograph was invented. Then the cinema to reproduce action by photography. Lastly we combined the phonographic and photographic records into the modern talking picture. The written words of a textbook and the spoken words of a lecture have to be transmitted from the eye and ear to the brain, where they are translated into mental pictures of reality and stored away as impressions or knowledge. The beauty of a tropical garden, or the horrors of war, require less effort either to portray or conceive when presented or viewed in the form of pictures. Compare these with mere descriptive words!

The cinema first gained popularity as a means of amusement, with its beginning in the comedy of a John Bunny, a Flora Finch, a Charlie Chaplin; then came love and romance; then, historical drama in the "Birth of a Nation" or "The Covered Wagon." Then came short scientific subjects, sea life and animal life; the animated fantastic pictures of Aesop's Fables, Mickey Mouse and a host of others. Millions are spent on such productions, all as a means of entertaining the public.

It gradually dawned upon our educators that the cinema would become a great aid and an efficient medium for general education in schools and colleges, and to this the medical schools were no exceptions. It has taken a hold on all institutions of learning, and is used for the study of any and all subjects that require visualization. In the study of medicine such subjects are anatomy, physiology, pathology, and especially surgery.

In the study of anatomy (the construction of the body) not only can the human machine be studied when it is taken apart, as is done by the medical students in the dissecting room, but the body can also be seen to reassemble by running the cinema film backward, producing in us the same mystification that we get when we see smoke running back into the chimney or water flowing up into the pitcher.

Physiology, the study of the functions of the human body, is a most fascinating subject. To record the various experiments and present the functions not by mere words but in real action is most helpful to the student and teacher. Imagine seeing before your eyes the human heart beat at the rate of 70 to 80 per minute and then by means of slow motion reduce its speed to 7 or 8 per minute. By this slow motion you are able to analyze the separate contractions of the heart's various chambers, the right and left auricles and ventricles, to observe, like the witching waves, the constant contraction of the heart muscle that pumps the blood on its way to all parts of the body and in a fraction of a second later relaxes its muscle walls and allows them to dilate, its chambers to fill with blood from the veins, and keep repeating the cycle of the heart action which goes on incessantly for hours, days, three scores of years or more. Then you can study the heart action in minute detail, as you would study in slow motion the fine plays of a tennis champion, the swing of the bat, the stroke of the golf club, the knock out blow of a Dempsey, Firpo, Tunney or Baer.

The distinction between the normal and the abnormal, the healthy and the sick condition of the tissues and organs of the body (pathology), requires constant observation and long experience to recognize. The study of disease as it applies to the human being in its entirety is a vast field of many variations; to be able to apply the knowledge thus gained to the treatment of the disease is most essential. The stare of the goitre patient, the rash of scarlet fever and measles, the limp of infantile paralysis and a host of other symptoms from the beginning of a disease to its full development can, by means of the cinema, be permanently recorded, like the growth of a flower. By filming its development for short intervals in successive hours or days, one can make a composite picture and you see it grow before your eyes. So, too, the development of tumors or other abnormal changes can be shown, — their progress, regression or improvement — a person's condition can be seen at one time by such a motion picture.

Surgery, the art and science of treating disease by operation, requires not only a thorough knowledge of the many fundamental subjects such as anatomy, physiology and pathology, but also a great deal of experience, good judgment and skill of the highest type. To overhaul a machine, to find out and repair the trouble of even your tele-

phone, requires a knowledge of its parts and their work. How much more important is it to know the human body before one can attempt to diagnose its derangements and particularly to treat by the removal of the cause of the disturbance, such as tumors, or to reconstruct defectively functioning parts, as in hernia, without danger to the patient.

The number and variety of operations mount into hundreds and each operation may have different methods of approach and procedure depending upon the existing factors, the skill of the surgeon and the seriousness of the patient's condition. Mastery of such a vast field is attained by the various aids, the textbooks, the lectures, the clinics and particularly the operating room. It is here that medical students congregate. They are seated in the amphitheater surrounding the center stage, with the surgeon, as the leading star, attended by his understudies, the assistants and the chorus of nurses and orderlies. The plot concerns the patient who may be the victim of a common or a very rare surgical malady. The various scenes or steps of the operation, from the rising of the curtain (the opening incision) to the closing final (the sewing up of the skin), take place on a limited area of a few inches of the patient's anatomy. Through such an opening the surgeon works, reaching the depths of the abdomen to grapple with the malady, whether it be an inflamed appendix, a gall-bladder, tumor, ulcer or kidney stone.

The body of students seated many feet away strain their eyes, crane their necks and contort their bodies to catch a glimpse of such operations, dodging the obstructions of the drapes surrounding the field of operation, as well as the obscuring assistants and nurses and even the surgeon himself; thus they miss some of the most important steps of the operation. Again, they might have to wait for days, weeks or even months for an opportunity to see the operations that they are studying because of the lack of such types of cases, particularly when of a rare nature. A good many of the rare conditions they never have an opportunity to see for that very reason.

The cinema, indeed, is a great aid; by this visual medium every step of the operation may be brought in clear view to the entire class of students, and to every individual as if they were taking part in the actual operation, standing right next to the patient at the operating table. The motion picture camera placed alongside the surgeon, protected by sterile sheets, registers all the moves of the surgeon, the steps of the operation, as well as the important findings, the pathological conditions and the abnormal state for which the operation was performed, as well as the entire progress of the case following the operation until his recovery, giving a complete bird's eye view of this entire study.

Even the surgeon, at leisure, may see himself operate, scrutinize his own steps and improve his technique where he deems it necessary. Also in a complicated or prolonged surgical illness and especially when consultations are held, the consultants and surgeons may view together the findings of the operation, the various steps and the complicated conditions. The consultants who naturally were not present at the operation may thus see and aid with their advice and opinion.

Such motion pictures in surgery will serve manifold useful purposes; they may be stored away as a surgical motion picture library, available to the entire profession. Not only can we leave for posterity, the fundamental and common subjects, but also the rarest cases which very few would otherwise have a chance to witness.

In the medical schools, in addition to the study of the textbooks, lectures by the professors and laboratory work, the knowledge and undertstanding of a subject may be more easily grasped and mastered by presenting that particular subject also in motion picture. Again, it is incumbent upon the surgeon, before going to the operating table, to be prepared as thoroughly as possible. He at times looks upon the literature, reviews his anatomy in order to make sure of his steps, particularly in a difficult or a rare condition. Thus he may also go to his library shelf and pick out a reel on that particular subject and can be even better prepared to perform the operation. Again those practitioners in the rural districts, where medical centers of study are not as accessible as in the great cities, may to a great extent keep abreast of the developments of medical surgery by such films which they may readily procure from established sources, just as they obtain books from medical libraries.

One may wonder how such material can be produced and where it can be obtained. The desire of man to leave behind him some work or achievement urges many surgeons to avail themselves of the great opportunity of the cinema. To this the writer proved no exception. About two decades ago when the cinema in the field of medicine and surgery was an innovation, the writer took a fancy to record some of the anatomical facts in motion pictures while working in the dissecting room. Convinced of its great value as an aid in teaching, he continued to develop a good portion of the anatomy, physiology and embryology in cinema form. Then came the most intriguing part of the hobby, 'surgery in motion pictures.' In the past few years he has developed a "system of General Surgery in Motion Pictures." A surgical film library consisting of over 200 reels of 400 feet each of the 16 mm. print. It covers practically all subjects and operations of

(Continued on page 22)

Visual Education in FERA Work

By RAYMOND THOMPSON
County Emergency Relief Administrator
Coeur d'Alene, Idaho

AN outline of a proposed state-wide educational program is now in the hands of our Relief Administration at the State Capital of Idaho. The possibilities of this program are at once apparent when we take into consideration the close contact our various workers have with the thousands of families in our state. That this program might well be adapted and adopted all over the United States is the contention of this writer.

The fundamental principles are as follows: In each county in our state we have a branch of the Federal Relief Administration. This relief work is divided roughly into three divisions: Social Service, Work Projects and Rural Rehabilitation. While the three are very closely inter-related, there are nevertheless, some special distinctions. For instance the Social Service Department functions on the principle of direct contact through the Social Service Aide with the family in the home. In our particular case each Social Service Aide is charged with the rendering of service to not to exceed one hundred and twenty-five families.

In the Works Projects the foreman in charge of seeing that this work is properly carried out, has direct contact day after day with men, the majority of whom are the heads of families.

In Rural Rehabilitation a particular kind of service is rendered, inasmuch as the family is not only contacted in a straight Social Service manner, but is also carried right through the Works Project program to the final completion of the actual rehabilitating, in other words, the placing of the family on a self-sustaining basis.

Where does the value of visual education enter in? First, let us consider the case of the Social Aide. Armed with a small film strip projector the Social Service Aide could give visual instruction to a select group of community mothers in a manner that would most assuredly produce excellent results. The various subjects which could be treated would depend of course upon circumstances, but they would range all the way from ordinary visual lectures in health education to the more intricate phases of Social Service treatment.

Consider also the project foreman, a man who has a great amount of influence over the relief workers under him. The education of these foremen is of great importance and regular meetings should be held in which the topics of handling men on projects, dealing with so-called radical workers, and education along safety engineering lines might well be followed.

In the Rural Rehabilitation program the education of people endeavoring to carry out these projects is of utmost importance if the projects are to culminate successfully.

The use of film strips, lantern slides or even motion pictures in discussing the manner of carrying out these programs would not only be educational but would undoubtedly have a splendid moral effect on the people dealt with. In our county we have worked up sets of glass lantern slides for use in education of the Social Service Aides along certain lines.

For instance, certain sets of films are used to bring out the fact that our people need encouragement. We call one set "The Pioneer Spirit" and the pictures used were taken in the far North where people depend for their very existence upon their initiative in planning ahead and making the utmost of whatever resources they may have available. Another set entitled "Lessons in Harmony From Wild Animals" is an object lesson showing how wild animals of certain kinds live harmoniously and insure their futures through a careful program of thrift. These two sets are merely indicative of the value of visual education in bringing out certain object lessons.

Our plan is first to educate the relief workers who have direct contact with the many thousands of our people. Once we educate these workers, we intend to follow a general educational program with the placing of our specialized film strips and lantern slides before select groups of people. These groups may be, as inferred previously, numbers of community mothers, they may also be certain people who are trying to work out some Rural Rehabilitation program, and if the educational pictures are broad enough, they may be taken before the general public.

Film Exhibition in India

The first Indian Motion Picture Convention will be held in conjunction with a Photo-Cine-Radio Exhibition in Bombay from February 16th to March 2nd, sponsored by the Motion Picture Society of India. Producers, distributors, exhibitors and others interested are asked to take part.

The sectional meeting on cinematography will be devoted to the historical development of technique, basic materials, applications for scientific educational and social work, health and other propaganda. There will also be lectures accompanied by lanterns slides, films and demonstrations, and daily programs of the best Indian films.

News and Notes

Conducted by JOSEPHINE HOFFMAN

Selected Movie Programs for Children

Representatives of ninety-seven social, religious and educational institutions of Manhattan's Lower West Side met with Professor Frederic M. Thrasher of New York University, Mrs. August Zinsser, John Kirkland Clark, president of the Community Councils of the City of New York, and their associates on Sunday, December 9th, to perfect plans for New York's first comprehensive and scientific experiment in controlled motion pictures.

Explaining the significance of this experiment, Dr. Thrasher said at the meeting: "The purpose of this experiment is neither to censor motion pictures nor to keep children from enjoying motion picture entertainment. Rather, it is our plan to make the community-sponsored program so attractive to the child that he will prefer to attend approved and supervised special performances instead of selecting his film fare on the basis of his own limited discrimination. Recognizing that the average child attends one or more motion picture performances each week, we feel that all community agencies have a very real responsibility in helping to direct a child's taste toward constructive rather than harmful motion picture performances."

If the experiment proves successful, and meets with the approval of the Board of Education, it will form the basis for similar activities throughout Greater New York.

Film Strips and Slides Tell Story of Farm Machinery

A series of 54 pictures illustrating the development and use of farm implements and machinery in the United States has been prepared by the Bureau of Agricultural Engineering and the Extension Service, U. S. Department of Agriculture. The pictures are primarily for the use of 4-H club workers, schools and other agencies. They depict the continuous development from primitive tools, such as the sickle, to modern power-driven implements and machines.

This collection, known as Series 335, "History and Development of Agricultural Implements and Farm Machinery," is available on glass lantern slides which may be borrowed from the Extension Service, U. S. Department of Agriculture, Washington, D. C., the only charge being the cost of transportation. It is also available for purchase in 16 millimeter film strip form from Dewey & Dewey, Kenosha, Wisconsin, for 45 cents. The Extension Service will supply information regarding the purchase of film strips.

Short lecture notes telling about the development and adoption accompany the slides; the notes are incorporated in the film strip.

Textbooks Illustrated with Motion Picture Stills

A recent issue of *Motion Picture Herald* reports an interesting and significant move on the part of some of the largest publishers of school textbooks to introduce to English classrooms new grammar books in which scenes from important motion pictures are used as illustrations. In announcing this plan to the Associated Press in New York, Mr. Adolph Zukor, president of Paramount Publix Corporation, declared the students will always be provided with fresh and modern illustrations as they will be replaced from time to time with scenes from current pictures. For instance, illustrations of "Skippy" and "Huckleberry Finn," which are among pictures now being printed in new editions of established grammar books, can be replaced with such travel and political subjects as scenes from "Lives of a Bengal Lancer" and "The President Vanishes." "The Crusades" will furnish much valuable historically interesting pictorial material.

Pennsylvania High School Successfully Uses Talking Pictures

Talking pictures have played a definite and important part in the regular curriculum activities of the Mahanoy Township High School of Mahanoy City, Pennsylvania. Development of the talking picture program and its successful operation for the past three years are the work of Dr. Joseph F. Noonan, Superintendent of Schools. A short description of the work, written by Dr. Noonan, follows.

"The program comprises two feature pictures each month and eight short subjects. Feature pictures such as Lady of the Lake, Ben Hur,Uncle Tom's Cabin, Dr. Jekyll and Mr. Hyde, Abraham Lincoln, The Virginian, Alexander Hamilton, With Williamson Beneath the Sea, and Little Women comprise the nucleus of a major auditorium program. Short subjects, shown twice each week during the morning assembly exercises, cover the fields of music, science, geography, history, travel, and allied subject divisions. The presentation is informal, no attempt being made to color the vi-

carious experiences thus provided for students by academic exposition. Supplementing the major auditorium activity is a well rounded program of silent and sound pictures which are used in the classrooms purely as aids in the presentation of regular academic classroom instruction.

"The film program is being constantly enriched and steps are now under way to add to its effectiveness by regarding it a mandatory part of the core curriculum."

Film Production Activities

Erpi Films Classified into Series

A move to simplify and make more efficient the use of educational talking pictures on the part of educational institutions has been made by Erpi Picture Consultants. This organization has reclassified its entire library of educational films which were produced under the sponsorship of leading educators, universities and institutions, so that the user may select complete series of films especially suited to various courses of study. Under the new classification there are nine series of educational films listed. The number of films in each series range from four to twenty.

The nine series embrace Botany (8 subjects), Zoology (13 subjects), Biology (18 subjects), Physics and Chemistry (6 subjects), General Science (20 subjects), Teacher Training (10 subjects), Nature Study for Primary Grades (11 subjects), Music Appreciation (4 subjects), and Parent-Teacher Programs (12 subjects).

The general worth of these films has been proved by a number of experiments conducted under strict scientific and educational procedure. Results of the experiments have shown that use of the films in connection with the regular classroom presentation of the subject matter has produced a very definite increase in learning, and that the subject matter may be presented more effectively and in less time than is required when the films are not used.

New Organization to Sponsor Family Programs

The Motion Picture Foundation, New York City, a non-profit agency to sponsor and assist in the production of family motion pictures, has recently been incorporated, with Dr. William B. Millar, formerly General Secretary of the Greater New York Federation of Churches, as secretary. Elizabeth Richey Dessez, formerly with Pathe, is identified with the organization in an executive capacity.

The essential element in the Foundation's program is the production of a regular supply of feature pictures and short subjects which will satisfy the demand for wholesome and intelligent family entertainment. Production plans provide for releasing a program of one feature and from three to five reels of shorts each week during the school year. The pictures will be sold under the direction of the Foundation, but distributed physically through established channels. The Foundation will not go into the business of producing pictures, but it will aid reliable independent producers by financing and insuring distribution of pictures made from short stories which have been selected by the story selection committee of the Foundation.

Series of Psychology Subjects

The C. H. Stoelting Company, Chicago, are releasing a revised series of 16 mm. films on psychology and physiology, including the following subjects: Eastman's film, *Microscopic Animal Life; Conditioned Responses, Reaction Time, Rote Learning, Illusions of Movement*, and *Industrial Motion Analysis*, from the Ford library; *The Pecking Instinct in Chicks, Reasoning, Maze Learning in the White Rat*, and *Behavior of the Feeble-minded*, from the University of Michigan; *Reflexes in the Frog, Determiners of Attention, Range of Visual Perception, Reliability of Memory, Types of Apparent Movement*, from the University of Southern California; *The Development of Behavior in the Fetal Cat*, from Brown University; *The Ape and the Child*, from the University of Indiana; *Motor Conditioning in Dogs*, and *Views of a Decorticate Dog*, from the University of Illinois. One 35 mm. film, *Mechanics of the Brain*, from the Physiological Laboratory of the Russian Academy of Sciences, may be rented.

Two New Government Films Released

Duck Farming, a new one-reel silent motion picture film, and a two reel film, *Home Demonstration Work in the Western States*, have been released by the Division of Motion Pictures, U. S. Department of Agriculture.

"Shots" of the Muscovy, the Runner, the Mallard, the Pekin and other breeds of ducks, of both ornamental and commercial types, are included in the duck film. Commercial duck farming methods are illustrated by scenes showing approved procedure in brooding, feeding and marketing of ducks.

The Home Demonstration film gives a general idea of the scope of home demonstration work in the West and shows how this work helps farm people to improve their homes and to enjoy them. Copies of these films are available in both the 35 and 16 mm. width.

Department of Visual Instruction Notes

Conducted by ELLSWORTH C. DENT, Secretary

Winter Meeting Next Month

Since the merger of the Department of Visual Instruction and the National Academy of Visual Instruction in February, 1932, it has been the practice of the Department to hold two meetings each year. One has been held concurrently with the meetings of the National Education Association and the other at the time and place of the meeting of the Department of Superintendence.

The Department of Superintendence meets in Atlantic City during the latter part of February and the Department of Visual Instruction has selected February 25 and 26 as the dates for its sessions. The sessions will be held at times which will avoid conflict with the general sessions of the Department of Superintendence.

An interesting and instructive program has been arranged by President Emmert. Dr. Tracy F. Tyler, Secretary of the National Advisory Council on Radio in Education, will present some recent developments along the line of Radio in Education. Miss Zoe Thralls, Assistant Professor of Geography, University of Pittsburgh, will explain "The Use of Pictures in Developing a Unit." Dr. A. G. Balcom, Newark, N. J. Schools, with the aid of lantern slides and charts, will interpret the quarter of a century of visual instruction in Newark and in New Jersey. Investigations, research problems and recent developments in visual instruction will be reported in order to allow members of the department to keep abreast of the times. The complete program will appear in the February issue of this magazine.

Future Plans to be Considered

The greater part of one of the sessions will be devoted to a consideration of plans for the course to be followed by the Department of Visual Instruction in the future. Several of the problems before the Department have been suggested in earlier issues and members have made additional suggestions. Consideration will be given to those which seem to require attention.

Although there are various organizations and movements devoting attention to the application of the motion picture to instructional procedure, there is none other than the Department of Visual Instruction which is giving constant consideration to the general problems of visual instruction. Teachers and administrators find ready advice concerning the use of motion pictures but sometimes find it difficult to secure similar information relative to the many other effective visual-sensory aids to instruction. The Department is in a position to assume and retain leadership in the general visual instruction field and plans should be laid to that end.

Cumulative Bibliography Needed

During the many years of his active interest and participation in visual instruction activities, the late Dr. Joseph J. Weber devoted much time to the compilation of a visual instruction bibliography. The last one he prepared for publication has been used widely but there is need for an up-to-date bibliography and for the continuance of this project. It would be a good assignment for a full-time secretary of the Department, along with the job of extending the membership of the Department to include all those who are using or are interested in the use of visual aids.

In connection with such an enterprise, it should be comparatively easy to establish a central library of visual instruction publications and articles, filed by subject and available for temporary loan to members who might desire detailed information concerning visual instruction topics. The graduate student and the teacher seeking information concerning the types and uses of visual aids find it difficult to locate required references. A reference service available through the Department would be used widely and would extend the usefulness and influence of the organization.

Texas State Visual Section Meets

The Visual Instruction Section of the Texas State Teachers Association held its regular annual meeting at Galveston, November 29—December 1, 1934.

"The Use of Slides in Teaching Elementary and High School Subjects" was discussed and demonstrated by Mrs. Stace Westmoreland of State Teachers College, Huntsville. Dr. C. A. Nichols of Southern Methodist University, Dallas, gave a demonstration of the use of slides in the teaching of the History of Education. In this connection he praised highly the work of Dr. Frederick Eby of the University of Texas in his preparation of 100 slides depicting Education in Texas.

"Visual Aids in Public Schools" was the subject of an address by Miss Vesta Hicks of Austin Senior High School. Dr. Charles F. Arrowood, University of Texas, gave a lantern slide talk on "The Ancient Cliff Dwellers."

The Massachusetts Branch of the Department of Visual Instruction Presents Annual Program

Boston University School of Education,
Saturday, January 26, 1935.

SUBJECT: How To Use Motion Pictures To Good Advantage

The value of the use of Motion Pictures has been established by research and practice. Everyone is asking the question: "How may the potential advantages be realized?" This meeting is devoted to the question of Methods of Using Educational and Recreational Motion Pictures.

Morning Session

Methods for using motion pictures in the classroom—Mr. Abraham Krasker, Director of the Department of Teaching Aids, Quincy. Instructor in Visual Education, Boston University School of Education.

By What Methods Can Teachers and Parents Improve the Children's Choice for the Better Commercial Motion Pictures?

The following book reviews will be presented on this subject:

1. "Our Movie Made Children," by James Forman. Reviewed by Mr. Robert W. Desmond, Editorial Staff, Christian Science Monitor.

2. "How to Appreciate Motion Pictures," by Edgar Dale. Reviewed by Mr. Chester F. Prothero, Beaver Country Day School.

3. "Photo Play Appreciation," by Dr. William Lewin. Reviewed by Mr. Fred E. Pitkin, Superintendent of Schools, North Andover.

Methods for improving commercial motion pictures—A national program—Mr. Stephen P. Cabot, New England Chairman of the Motion Picture Research Council.

Afternoon Session

The use of motion pictures to promote international understanding—Professor J. Anton deHaas, Head of the Department of International Relations, Harvard Graduate Business School.

Demonstration of the use of motion pictures in a character education program—Dr. Howard M. LeSourd, Dean of the Graduate School, Boston University.

There will also be school exhibits of work showing the use of teaching aids in their school system, the latest available material and equipment.

National School Radio Programs

A number of excellent educational radio programs are being presented this year. Some of the programs are designed for school room use, while others are for adult education. Announcement of a few of these programs follows:

Our American Schools—sponsored by the National Education Association. Saturdays, 5:30 p. m. EST. National Broadcasting Company. Theme—Preparing Youth for the New World.

An Invitation to the Convention of the Department of Superintendence of the N. E. A.

February 23-28

You'll enjoy the homey atmosphere at Hotel Chelsea. Situated on the boardwalk, above the ocean, you'll find the sun deck particularly restful.

The Convention facilities are particularly good because Westminster Hall (part of the Chelsea) was especially built for groups. It seats 1800 people and several convention functions are being held there. Hotel Chelsea is located just 5 blocks from the auditorium.

We invite you and your friends to enjoy our excellent food—to be with us at Convention time in Atlantic City.

Come early for Washington's birthday. We urge your early reservations.

Hotel Chelsea
ATLANTIC CITY
OPEN ALL WINTER
ON THE BOARDWALK
JOEL HILLMAN
J. C. MYERS JULIAN A. HILLMAN

Education in the News—Sponsored by the U. S. Office of Education. Wednesdays, 6 p. m. EST. National Broadcasting Company.

Series of Educational Addresses—Sponsored by the National Congress of Parents and Teachers. Thursdays, 5 p. m. EST. Red Network, National Broadcasting Company.

A number of different series of broadcasts — Sponsored by the National Advisory Council on Radio in Education, 60 East 42nd Street, New York. A series for each day of the week. Write to the Council for programs and literature.

Ohio School of the Air—Sponsored by the Ohio State Department of Education, School Days, 2 p. m. EST. Station WLW.

Wisconsin's publicly owned stations, WHA at Madison, and WLBL in Stevens Point run a full days program starting at 8 a. m. each day, with the *College Of The Air* daily at 1:00 p. m.; and 3:00 p. m.; and the *School Of The Air* at 2:05 p. m. daily.

Walter Damrosch Music Appreciation Hour—Sponsored by the National Broadcasting Company is broadcast in four series from 11 to 12 EST each Friday morning.

Radio Station WSUI, State University of Iowa is running two series of broadcasts. The one designed for high school students as a regular part of the school program is given on Mondays and Tuesdays from 11:30 to 12 m. The second series is broadcast for the Iowa Federation of Women's Clubs. The programs are given each Monday from 3:30 to 4 p. m. CST.

George Peabody College for Teachers is giving a series of broadcasts entitled "The Teachers College of the Air", each Friday evening from 9:30 to 10 p. m. CST., over station WSM, Nashville, Tennessee.

The Film Estimates

Being the Combined Judgments of a National Committee on Current Theatrical Films
(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)

Babes in Toyland (Laurel and Hardy) (MGM) Hilarious, often burlesque, always clean nonsense combining Victor Herbert's music, fairy-tale, nursery-rhyme and comic strip characters with Laurel and Hardy as prime movers of action. Unwise "scare" scenes strong for sensitive children. Garishly staged.
A—Mildly amusing Y—**Amusing** C—Exciting

Bachelor of Arts (Tom Brown, Anita Louise) (Fox) Somewhat jerky story of rich college boy saved from wasting time and money by efforts of girl who loves him. Brown overacts. Some fine work by Mae Marsh and H. B. Walthall, and Stepin Fetchit's voice and actions funny as usual.
A—Too juvenile Y—**Interesting** C—Probably good

Behold My Wife (Sylvia Sidney, Gene Raymond) (Paramount) Wealthy family cause suicide of chorus-girl by brazen lie told to keep their wild son from marrying her. So he marries Indian to outrage family. His sister's murder of her paramour brings mess to happy ending. Dubious motivation and weird ethics.
A—Hardly Y—Unwholesome C—No

Big-Hearted Herbert (Aline MacMahon, Guy Kibbee) (Warner) Kibbee convincing as grouchy, blustering, egotistical self-made business man who bullies and humiliates his family with his antiquated ideas and bad manners. How his wife tames him furnishes clean, wholesome fun. Fast-moving, human comedy with character interest.
A—Probably amusing Y—Funny C—If it interests

Bright Eyes (Shirley Temple, James Dunn) (Fox) Appealing little story about devotion of young airplane pilot to orphaned child. Much is fine, wholesome, amusing, but marred by one over-sad and tragic episode. Shirley engaging as always. Climax healthily thrilling and ending appealing.
A—**Very good** Y—**Very good** C—Mostly good

Broadway Bill (Warner Baxter, Myrna Loy) (Columbia) Excellent race-track comedy of real character and human interest. Hero and sister-in-law scorn life of ease and, unconventionally, surmount endless obstacles to bring beloved horse to Derby victory. Then joyous divorce and marriage. Dubious ethics, but mostly thorough amusement.
A—**Fine of kind** Y—Perhaps C—No

By Your Leave (Frank Morgan, Genevieve Tobin) (RKO) Middle-aged couple, supposedly intelligent, think they need week's fling apart, but brief philandering cures the illusion for both. Labored social comedy, too farcical to convince, and largely nullifying sophistication by burlesque character of the action.
A—Mediocre Y—Better not C—No

Caravan (Loretta Young, Charles Boyer) (Fox) Romantic mixture of nonsense, music, comedy, modern modes and gypsy costumes. Background of Hungarian castle at wine-harvest time. Much drinking. Loving her lieutenant cousin, heroine weds gypsy to save estate. Annul marriage for solution. Complex.
A—Rather good Y—Doubtful C—No

Chu Chin Chow (George Robey, Anna May Wong) (Gaumont-British) Skillful screening of fantasy of Ali Baba and Forty Thieves, ably acted in spirit of original. Tone, incident, and unspeakable cruelty vastly more vivid and gripping than same scenes verbally told in Arabian Nights. Sets and costumes elaborate and exotic.
A—**Interesting** Y—Strong C—Too strong

Dangerous Corner (Virginia Bruce, Conrad Nagel) (RKO) Rather novel picture, interestingly sustaining suspense by successive revelations in the plot, showing two resultant endings for sophisticated social situation, depending on whether whole truth is told or not. Trivial incident determines tragic or romantic outcome for action.
A—Fair Y—Better not C—No

Desirable (Jean Muir, George Brent) (Warner) Hero "successful business man" who always ignores business for romance, pursuing first stage-star siren, then her long-concealed daughter, fresh and unsophisticated. Everybody decent but life for all mere froth of social functions and romantic excitement.
A—Fair Y—Not worthwhile C—No interest

Evelyn Prentice (William Powell, Myrna Loy) (MGM) Finely acted, restrained, strong story of fine couple, genuinely devoted to each other and their child, each brought under suspicion of misconduct. Contemptible villain nearly ruins their future but skill of lawyer-husband brings about clever reversal.
A—Good of kind Y—Very doubtful C—No

Forsaking All Others (Joan Crawford, R. Montgomery, C. Gable) (MGM) Heroine, beloved by two life-long friends, is left at altar by one of them but gets him back, only to discover she loves the other. Lively, superficial story with smart settings, gay parties, amusing dialog, much slapstick, and deft comedy by Charles Butterworth.
A—Depends on taste Y—Doubtful C—No

Fugitive Lady (Florence Rice, Neil Hamilton) (Columbia) Highly improbable, rather confused crook story with chief crook a crawling cad who involves innocent heroine in jail sentence. Incredible chance brings heroine and hero to real love. Wholesome romance outweighed by sordid action and artificial plot.
A—Mediocre Y—Doubtful C—No

Gay Bride (Carole Lombard, Chester Morris) (MGM) Gold-digging heroine, whose brazen cheapness is played up as charm, hands self in marriage from one gangster to another to inherit as they die. Not a reputable character in story, the hero a crudity, and practically no English spoken.
A—Trash Y—Unwholesome C—No

Gentlemen Are Born (Franchot Tone, Jean Muir) (1st Nat'l) Much engaging comedy about three young Harvard grads, and three girls, meeting endless trouble finding jobs. Shows either not to expect success merely from college degree, or that college is not worthwhile. Unobjectionable, amusing, passably acted, but not wholly convincing.
A—Hardly Y—Probably good C—No interest

Home on the Range (Evelyn Brent, Jackie Coogan, R. Scott) (Paramount) Hash of absurd and impossible situations made into "modern" horse-opera. Noble-hearted female crook remains pure and good through endless series of escapades, and wins the cowboy-hero. The song is dragged in, having no visible connection with the story.
A—Stupid Y—Hardly C—No

Imitation of Life (Claudette Colbert, Warren William) (Universal) Dramatic story depicting courage and sacrifice of two mothers, one white and other black, who have developed successful business together. Vital and tragic problem of mulatto girl skillfully handled. Idealistic but slow-moving, too unrestrained and sentimental at times.
A—**Interesting** Y—Mature C—Too mature

It's a Gift (W. C. Fields, Baby Leroy) (Paramount) Fields does effectively his typical comic stuff in futile leading role of feeble story. As henpecked husband, who has bought a crazy California orange grove, he fumbles through, by rickety auto, to strike it rich at last. Nothing to it but Fields.
A—Feeble Y—Perhaps C—Doubtful

Jane Eyre (Colin Clive, Virginia Bruce) (Monogram) Well screened classic, not "modernized", with dialog, sets, costumes and characters true to book and England 100 years ago. Properly slow-moving and formal, but stilted at times. Acting sincere, but not able enough to make a great picture.
A—**Interesting** Y—**Good** C—Little interest

Kid Millions (Eddie Cantor, Ethel Merman) (U.A.) Hilarious, Cantor musical slapstick, aimed accurately at the box-office. Popular songs, wisecracking dialog, much dancing, elaborate stage numbers, lunatic comedy, and less vulgarity than ever. Crazy plot about $77,000,000 inheritance in Egypt and fake heirs.
A—Depends on taste Y—**Amusing** C—Perhaps

Lady by Choice (May Robson, Carole Lombard) (Columbia) Notable character role by Robson as gin-soaked, lying, gambling old woman, finally "adopted" as mother by common, carabet-dancing heroine as publicity stunt. But affection grows and makes life for each less seamy and more human.
A—Good of kind Y—Very doubtful C—No

Little Minister, The (Katherine Hepburn, John Beal) (RKO) Another classic beautifully screened. Faithful to essentials of original, and with charm of settings, atmosphere and characterizations to delight the intelligent. Somewhat slow-moving, but photography, direction and acting notable, with Beal practically perfect in title role.
A—**Excellent** Y—**Excellent** C—No interest

Love Time (Nils Asther, Pat Patterson) (Fox) Light, wholesome romance depicting Franz Schubert; his life, music, and charming love affair with a supposed country girl. Asther does difficult role well. Simplicity, genuineness, character humor and period interest make appealing little film.
A—**Pleasing** Y—**Very good** C—**Good**

Man Who Reclaimed His Head, The (Claude Rains) (Universal) Strong arraignment of munitions-makers as prime cause of war, unscrupulous even to debauching press for profit. Rains fine as high-principled writing genius. His wife's honor attempted, he returns from trenches for grim vengeance. Fine War shots.
A—**Interesting** Y—Mature C—No

Menace (Gertrude Michael, Paul Cavanagh) (Paramount) Suspenseful murder thriller, effective cast and direction, one or two somewhat harrowing scenes. Grim plot of demented mind for stabbing three wholly innocent persons gets one victim before plotter's presence in household is discovered.
A—Good of kind Y—Thrilling C—No

Mighty Barnum, The (Wallace Beery, Adolphe Menjou) (U.A.) Typical Beery stuff, showing Barnum as crude, gullible, childlike, alternately blundering into success and failure exploiting freaks. Broad burlesque and sensational events, sometimes amusing, often merely ridiculous, frequently in bad taste, with spectacular fire as climax.
A—Depends on taste Y—Probably amusing C—No

One Exciting Adventure (Binnie Barnes) (Universal) Light, sophisticated, intriguing crook comedy with glamorous Parisian settings. Heroine is a fascinating Lady Raffles who steals for thrill, not for profit, until love cures her of mania for jewels. Punishment evaded and police belittled.
A—Fairly amusing Y—Probably harmful C—No

Painted Veil, The (Greta Garbo, Herbert Marshall) (MGM) Garbo as temperamental daughter of Viennese scientist marries fine doctor whose post is in China. Then glamorour adultery with hero's married colleague against Chinese-temple background. Lover turns cad. Heroine becomes devoted to hero.
A—Depends on taste Y—Certainly not C—No

Power (Conrad Veidt) (Gaumont-British) Impressive, forceful portrayal of famous novel "Jew Suss". Veidt excellent as unscrupulous, ambitious Jew who sacrifices everything for power in order to aid his oppressed race. Background of 18th century racial prejudice and intrigue. Harrowing execution scene.
A—**Notable** Y—Strong C—No

Pursuit of Happiness (Francis Lederer, Joan Bennett) (Paramount) Deftly done romantic comedy with historical interest despite merry burlesque. Fuel-saving practice of "bundling" in revolutionary New England is amusing climax, but ignorance will guffaw, thinking it lewd. Lederer does notably fine role.
A—**Amusing** Y—Doubtful C—No

Ready for Love (Richard Arlen, Ida Lupino) (Paramount) Cheap farce about mostly very cheap people. Small-town gossips mistake heroine for mistress of former "leading" citizen, hence ducking-stool punishment. Mistake discovered. Notoriety brings stage offers but heroine finally refuses and marries reporter hero.
A—Trash Y—Trash C—No

Romance in Manhatten (Ginger Rogers, Francis Lederer) (RKO) Sincere, refreshing little story of real people and their problems. Enthusiastic and ambitious young immigrant, engagingly played by Lederer, enters U.S. illegally and is befriended by chorus girl and police. Appealing romance and amusing situations.
A—**Pleasing** Y—**Good** C—**Yes, if it interests**

Wednesday's Child (Frankie Thomas, Karen Morley) (RKO) Human, appealing story of sensitive boy's suffering over unsympathetic mother's contemptible conduct, then over adored father's proposed second marriage. Father heroically brings happy ending. Father and son roles outstandingly well played.
A—Good of kind Y—Better not C—No

White Parade, The (Loretta Young, John Boles) (Fox) Splendid film, emphasizing ideals of service in nursing profession. Training school background and atmosphere strikingly handled. Some exaggerations, but whole is sincere, quietly emotional and dramatic, with much that is human, sentimental, and amusing.
A—**Good** Y—**Very good** C—No interest

Among the Magazines and Books

Conducted by MARION F. LANPHIER

The University of Michigan School of Education Bulletin (November, '34) "Films for Students of Education," by William Clark Trow.

Motion pictures of learning materials are recommended as observation is necessarily limited, and reading and hearing of educational platitudes becomes dull and arid. It is enlivening to see on the screen the psychologists and educators of whom the students read, to see classes in this country and abroad, to see special educational procedures based on psychological principles, and to see experimental methods and techniques applied. In using the motion picture camera in the schoolroom, the teacher knows how to choose the significant to be pictured, but is apt to be an amateur photographer. The professional photographer is apt to choose the unusual, the dramatic, and the spectacular, — that which will make an emotional rather than an intellectual appeal. Almost as important as the selection of subjects, is the editing. Here the professional photographers can be of little assistance, but the material is all dear to the heart of the teachers. "But ruthless cutting and rearranging will often bring out possibilities which would scarcely have been suspected."

International Review of Educational Cinematography (November, '34) "The Educational Film in the World of Labor," Communication from the International Labor Bureau.

In twenty-three pages, a full treatment is given of the work of the International Labor Office in the field of visualization under the League of Nations. A film catalogue on social questions was started in 1927 and is kept up to date. Films produced in various countries are described on loose leaves and the information is distributed. Among the subjects treated are: accident prevention in industry, use of films for disseminating information on agriculture, utilization of workers' spare time, and industrial hygiene. Many suggestions are made for future developments in the film field on matters pertaining to the labor world. Vocational Guidance is analyzed in a scientific manner and along new lines. Producers of Educational Films in any country will find suggestions in this article upon which they may work for decades to come.

"The Cinema in Vocational Guidance," by Professor Luc, General Director of Technical Teaching at the French Ministry of National Education. After the War it was sought in France "to encourage the children to learn a proper trade or craft rather than yield to the attraction of immediate earnings which inevitably result in subsequent inefficiency." To choose a craft, it is necessary to know several crafts. The difficulties of taking children to factories and mills are hazardous and insurmountable. "If the screen is only a reproduction of reality, it possesses advantages over the visit from the demonstrative point of view. The contrast of black and white revealed on the screen shows the objects projected enlarged, and renders them more easily understood. The slow motion projector, moreover, can split a movement up and reveal it in a way that nothing else can." Since 1923, France has had a special commission for the cinema as applied to vocational guidance attached to the ministry. This commission may recommend purchase or rejection of films. The films are sent throughout France, and meetings are held for those about to leave school under the direction of a government official.

"The Vocational Guidance Film," by Julien Fontégne, Inspector General of Technical Training, Paris.

Notions on work that a child should consider after leaving the elementary school are clearly noted. Some pupils do not feel the need of such instruction. For such pre-vocational guidance is suggested, which may be given through such films as those on the life and labours of fishermen, the fields where the market gardeners work, the miner's hard life, the artistic creations of the French artisans, and the "tremendous tumultuous life of our modern factories and workshops."

School and Society (October 20, '34) Educational Events"—an account of the plan by which pupils are taken in groups to the Century of Progress

Photo Art Monthly

A magazine appealing particularly to Educators and those interested in Visual Instruction through the photographic depiction of scientific and beautiful subjects.

It covers its subjects authoritatively by offering only the best writers in their specialized branches.

$2.00 per year 20c a copy
$2.50 Foreign 25c in Canada
$2.60 per year in Canada

Photo Art Publisher
482 - 498 MONADNOCK BUILDING
SAN FRANCISCO, CALIFORNIA

CAMERA CRAFT

Photographs Tell Stories

Learn how to make your camera become a skilled story teller. It's all in understanding its capacities and limitations.

There is joy in making good photographs . . . Read how others do it. Subscribe to that beautiful, monthly magazine.

Camera Craft

It's devoted to photography. $2.50 a year.
Send 25 cents for a late copy.

CAMERA CRAFT PUBLISHING COMPANY

703 Market Street, San Francisco, California

Do You Teach Geography?

IF you teach or direct the teaching of Geography, you will want to investigate The Journal of Geography, an illustrated monthly magazine owned by the National Council of Geography Teachers, and published especially for teachers.

THE JOURNAL GIVES YOU—Supplementary material for students and teachers . . . confidence by enabling you to know the best and thus keep several leagues ahead of the non-subscribers . . . success to teachers and students who sincerely want it.

If you are not familiar with this splendid magazine pin this ad to your letterhead and the next copy will be sent to you FREE of charge.

THE JOURNAL OF GEOGRAPHY

3333 Elston Ave.

Chicago, Ill.

K-3

after educators, members of museum staffs, and area chiefs of the exposition had developed syllabi and advantageous tours. "It is the first time in the history of education that any exposition has done this work for students. The material and the opportunity for its study in this manner are in accord with the newest ideas in educational progress."

American Childhood (November, '34) "Selling Education through the Camera," by Mabel Osler Priest.

With the thought that in this visual-minded age, school life should be pictured for parents and friends, Mrs. Priest was asked by the Editor to make clear to teachers a simple technique for presenting pictorially dramatic situations in school activities. A beautifully illustrated article results, in which the simplest directions are given for using a camera in the schoolroom.

Elementary School Journal (October, '34) "Free Services Offered Children by Museums and Art Galleries. II," by Rupert Peters.

Service brought to the schools is discussed in the second article of this series. The boards of education in Detroit, Cleveland, and St. Louis maintain museums for lending materials to schools. The Pittsburgh board of education pays $15,000 annually to the Carnegie Museum to provide natural science loan materials for schools. The Detroit Children's Museum lends a large collection of art reproductions, mounted birds and small mammals, costume dolls, minerals, pottery, baskets and textiles to the schools. The museums of Cleveland and St. Louis also serve schools with slides and films. St. Louis has acquired specimens from three world's fairs and lends objects in preference to pictures. Eight employees are required for transporting the museum collection in Newark, New Jersey. The American Museum of Natural History in New York City uses eight trucks for a similar service. The Field Museum in Chicago sends a small diorama every two weeks to each school. The Philadelphia Commercial Museum has placed from one to twenty cabinets of exhibits in nearly every school of the state through state aid. As a rule, the lending collections are functioning more fully than the class trips to the museums.

In some cities members of the museum staff visit schools upon request and give talks illustrated with slides or motion pictures. The museum of Reading, Pa., employs in this manner one man on full time. The Metropolitan Museum of New York City sent a staff member once a quarter in 1933-'4 to speak in every Jr. and Sr. High School in the city. Illustrated lectures are often given to children on Saturdays and a story hour is provided on Sundays. The Toledo Museum of Art often has an audience of 1,500 children.

Some museums carry on club work for children during the summer when hobbies are developed.

(Concluded on page 24)

School Department

Conducted by DR. F. DEAN McCLUSKY
Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Teaching Progressive Methods In Science Problems

By ROGER B. SAYLOR
Head of Physics and General Science,
Barringer High School, Newark, N. J.

IN "PROGRESSIVE Schools" differences in pupil intelligence are recognized and measured by various tests. It is highly desirable to apply the course of study in any subject so that the curriculum for the pupils of normal intelligence will contain the essentials of that course, but the curriculum for the brighter pupils will be enriched if possible, to meet the needs of each pupil. Recognizing the fact that, with classes of ever-increasing size and number, it is difficult for the teacher to know all of his pupils individually, I determined to use a method of solving problems in our science classes which would approach the ideal situation of enabling each pupil to work to his capacity.

"We all know that the eye registers impressions in much less time than does the ear. The impression which the brain receives through the eye is frequently retained longer and can be recalled more easily than the impression received through the ear. As a teacher of science for many years I have found out that pupils follow carefully well prepared and demonstrated experiments. By later testing I have discovered that pupils learned well from these experiments.

Many pupils have been scared away from a science such as physics because they felt they could not master the mathematics involved. It has been my experience, however, that most pupils can master these problems if they are presented to the *EYE* as well as to the ear.

Time is too precious to write problems on the blackboard, so I make use of the projecting lantern. I am making a "library" of lantern slides. The time consumed and cost of making lantern slides by the older method is too great. Many classrooms are not supplied with dark shades and even if they were a darkened room would not be desirable. Glass lantern slides, and their cover glasses, absorb a large percentage of the light incident upon them. Realizing these and many more obstacles to be overcome, I decided to use "cellophane" to make my lantern slides.

I needed slides for problems and slides for diagrams. The problem slides were made by placing a piece of clear, colorless cellophane between two pieces of carbon paper. The ribbon was removed from my typewriter and the keys struck directly on the carbon paper. By this method the letters were printed on both sides of the cellophane. Two pieces of thin cardboard, the size of a lantern slide (3 1/4 inches x 4 inches) were cut from whatever cardboard was available. A rectangular hole (2¼ inches x 3 inches) was cut in each card. The cellophane was then pasted between two of the cards.

A set of slides for diagrams were made by pasting clear cellophane between two cards cut as indicated before. The diagrams were then drawn upon the cellophane with India ink or with a pencil

Syncrofilm Sixteen Sound Projector

Syncrofilm Sixteen features simplicity, high quality, and outstanding performance, at low cost.

Has ample volume for large auditorium yet equally adaptable to class room use.

Will operate silent films as well as sound.

The latest in 16mm. sound projection.

LET US TELL YOU MORE ABOUT SYNCROFILM SIXTEEN.

Weber Machine Corp.
Manufacturers of 35 mm. and 16 mm. Sound Projectors
59 RUTTER STREET — ROCHESTER, NEW YORK
New York Sales and Export Department
15 Laight St., N. Y. C. -:- Cable: Romos, N. Y.

SCARBORITE
TRANSPARENT COLORS
BRILLIANT TRANSPARENT COLORS
For Painting on Glass, Cellophane, etc.
Ideal for pupil-made lantern slides and a revelation to all lovers of color.
Send 10c in stamps for lantern slide of color samples.
SCARBORITE COLORS, Scarborough-on-Hudson, NEW YORK

16 mm. EXCLUSIVELY
Sound and Silent Projectors
Sound and Silent Cameras
Distinctive Titles
Negative Developing—Positive Printing
Special discounts to educational institutions.
J. C. HAILE & SONS
Motion Picture Dept.
215 WALNUT ST. CINCINNATI, OHIO

such as is used for drawing on glass. These diagrams consisted of a large variety of subjects such as steam engines, gas engines, pumps, automobile gears, parts of a flower, sections of roots, chemical apparatus, etc. Unbalanced chemical equations were written on other slides.

The advantages in using these slides is that, in presenting problems to pupils, the attention becomes centered rapidly on all details. If the problem is a mathematical one, pupils learn quickly to organize the data and soon decide whether or not they can solve it. A three by five filing card is filed with each lantern slide and on this card is a typewritten copy of the problem and on the reverse side is the solution of the problem. Pupils with difficulties come to the instructor's desk and receive help. As soon as a pupil has solved a problem, he draws a circle around the answer and brings it to the instructor for "credit." A second lantern slide is then thrown on the screen for those pupils who have completed the first one. The same procedure is followed with this problem as well as with a third, a fourth, or more problems. The brighter pupils can progress at a very rapid rate while the pupil with less intelligence may solve only the first or perhaps the first and fourth problems. Pupils want success and when they see the teacher record an "A" for them, it stimullates them to greater endeavor. Healthy competition results, and I have found that pupils who do not succeed well on a given day will come to the teacher for help outside of class. Home problem work is usually a preparation for class problem and "credit" work.

These lantern slides are valuable too for reviews. By keeping the lantern on the desk, in front of the room, and by properly cataloging the slides, they are available at any time. The pictures are projected on the side wall or a screen placed diagonally across the front corner of the room. The back of an old map or a cheap white window shade can serve as a screen. I know that lantern slides made as above could be used in the teaching of many subjects from the kindergarten through the high school.

Measuring the Value of Two Slides and One Stereograph

By MARTHA H. COX

IN MY experiment to ascertain the value of the slides and stereographs (with a 2A and 3B group) I chose as a subject "The Banana." Children know very little about bananas except that they are a fruit and that they like to eat them. The second grade children read about bananas and also have them in their arithmetic work. The third grade has two chapters on bananas in their geography.

I worked with both the 2A and 3B classes together. As I read out of the book I showed them all the illustrations in the book and they are excellent.

I have 6 rows of seats with equal number of children in my three classes. The first two rows have the stronger 3B class, the next two rows have the weaker 3B class and the last two rows are my 2A class. I numbered my rows one, two, three, four, five and six. I took rows one, three and five upstairs to see two slides and one stereograph. The slides showed the plants with fruit and blossoms, and some plants between other fruit trees. The stereograph was like one of the slides.

The same number of children remained down stairs as went up. There were 15 in each group. Both groups had exactly the same subject matter except the slides and stereographs. The same objective test was given to the entire room with the following results.

Average for class seeing the slides and stereograph—72½.

Average for class not seeing slides and stereograph—60½.

Four of the class seeing the slides and stereograph fell below 70% while nine of the other class fell below 70%.

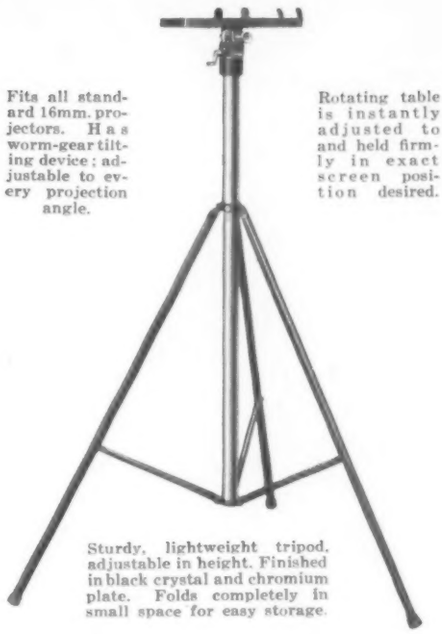
By studying the results of this test one can readily see the advantage of this type of visual aid in teaching.

Better Presentation

with the NEW

DA-LITE

PROJECTOR STAND



Fits all standard 16mm. projectors. Has worm-gear tilting device; adjustable to every projection angle.

Rotating table is instantly adjusted to and held firmly in exact screen position desired.

Sturdy, lightweight tripod, adjustable in height. Finished in black crystal and chromium plate. Folds completely in small space for easy storage.

Makes Amateur Movies More Delightful

The new Da-Lite Projection Stand puts an end to all trouble in the presentation of movies in the home, school, church, club or industry. No confusion nor delay in preparation for showing. Easy to set up; readily adjustable to desired height and position. Permits the picture to be projected over the heads of the audience — in the professional manner. With a Da-Lite Projector Stand and a Challenger Screen, you need never make an apology for your own movie show. *See your supply dealer or write us for details.*

DA-LITE SCREEN CO., Inc.

2723 N. Crawford Ave. Chicago, Ill.

This Library

IS AVAILABLE TO YOU

Most State Boards have available a wealth of lantern slides arranged for the express purpose of teaching on numerous subjects.

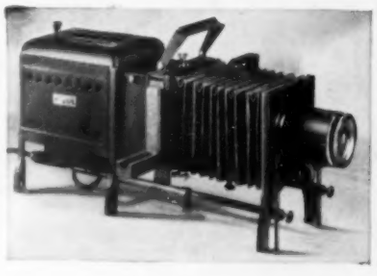
Are you taking advantage of them?

The still picture projection method can be one of your greatest teaching aids and you can use it even in these days of limited budgets.

You can obtain complete information on Balopticons for lantern slides by writing to Bausch & Lomb Optical Co., 688 St. Paul Street, Rochester, N. Y.

The B & L Model B Balopticon

A compact, easy to operate lantern slide projector designed primarily for class room projection.



Bausch & Lomb

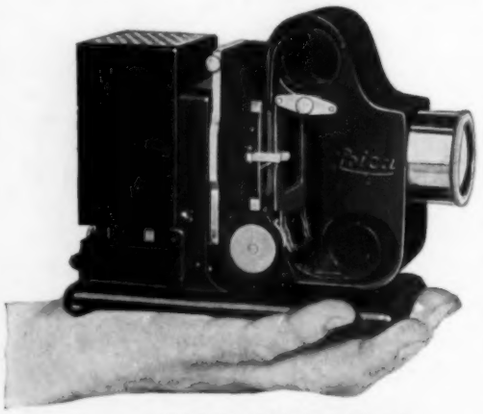
We make our own glass to insure standardized production. For your glasses, insist on B & L Orthogon Lenses and B & L Frames.

For Making Home-Made Slides

GLASSIVE — an abrasive for making your own ground glass slides from plain cover glass for a fraction of a cent each. **50c a package.**
CELLOSLIDE—Eliminates the necessity of writing on glass. Takes ink better than glass. **500 sheets for $1.00.**
(Dealers Wanted — Write for terms)
TEACHING AIDS SERVICE, WABAN, MASS.

The Typewriter Slide
For Screen Projection
FOR SALE BY YOUR THEATRE EQUIPMENT DEALER
Write for free samples.
RADIO-MAT SLIDE CO., Inc.
1819 Broadway New York, N. Y.

One of Over 300 Photographic Accessories Offered by the Makers of the LEICA Autofocal Camera



***The* UMINO PROJECTOR**
for Miniature Pictures

LEICA as well as other pictures are reproduced in all their full, rich beauty by this projector. Ideal for school room projection, being small, easy to operate, and inexpensive. Single frame, double frame and 2x2 in. glass slides may be used. Write for Circular No. 1230, also full information about the LEICA Autofocal Camera and photographic accessories.

E. LEITZ, Inc. Dept. 641
60 EAST 10TH ST. NEW YORK, N. Y.

The Cinema in Surgery

(*Continued from page* 10)

general surgery performed by the writer, included in well-recognized surgical textbooks and even a good many rare conditions not found in the literature. In all, there are over three hundred operations (each reel consisting of one or more operations) with their clinical course, the appearance of the patient and his condition before the operation, the technique by which the disease is dealt with and the pathological specimens removed, the condition of the patient after the operation and up to the time of his recovery. Such material is available throughout the country.

If it is possible for one individual to cover this field in motion pictures, there should be no doubt in anyone's mind that educational institutions, with their learned faculties and rich endowments, could easily develop the cinema in every field of endeavor, whether it be in the fundamental subjects—physics, chemistry, botany, zoology, anatomy and physiology, or, the special subjects of medicine and surgery. The United States has so far led the world in the various industries, in automobile manufacture, the motion picture, the radio. It could readily set the same example in the educational field, particularly that of medicine. The Medical Center could be made the Radio City of teaching, the County Medical Society, the Trans-Lux theater for current medical events. We attend the Roxy, Paramount and Capitol theaters to see all star productions, to say nothing of the current news events. The physician should find it a pleasant duty to attend the County Medical Society regularly at least once a week—to view their store of medical knowledge in a most palatable form—the cinema—and so review the old and keep abreast of the new. Call it, if you will, a cinematic course in medicine, surgery, obstetrics, gynecology or any other desired subject.

It is a common cry among the public and even in the ranks of the medical profession that the fine old style family physician is vanishing. The reason for this condition of things is the impossibilty of mastering so many new subjects, as the various specialties, which enter into medical practice, and which may in part be solved by modernizing the acquisition of such knowledge. With the aid of the cinema, however, the mastering of a good many of these subjects may be accomplished by the general practitioner with greater ease and thus he may resume the role and respect of the old time family doctor.

Then again there is a dearth of country doctors,

which in part is due to the fact that when they graduate, they choose the city for better comforts and facilities for learning. Would it not make the country doctor more content if the wealth of medical and surgical knowledge were brought to him in the form of cinema?

Such material could be best obtained through organized sources. It would be most practical for all films so available to be controlled or under the supervision of the United States Department of Education—the Surgeon-General's Library. With such a supervising and circulating medium, one might obtain for the various colleges, centers of learning, medical Societies or even for individual use, the subjects he is most interested in.

In the use of the cinema for educational purposes, one must always think of it as a great aid and a supplement, not intended to replace the other methods of teaching. The personal element of the teacher, the use of the textbook, practical experience—all these means of broadening our knowledge and experience can never be dispensed with, but the burden of such study may be greatly lightened by the aid of the cinema, the hours of cramming lessened by a better understanding of the subject, and a permanent visual experience stored away for all time.

9'x9' SCREENS - $14.50

Regular $60 Value—Metal Roller for Screen, $4.50 extra
Made of perforated mat white material. For sound or silent projection. Equipped complete with pole ready for hanging—cheap enough to cut up for class room work. *Limited Number Available.*

ALFRED D. HORNSTEIN
29 E. MADISON ST., CHICAGO, ILL.
We handle a complete line of Da-Lite Screens.

100 FILM COMPANIES IN 1
A New Service

Select from 2500 educational films in our hand book.

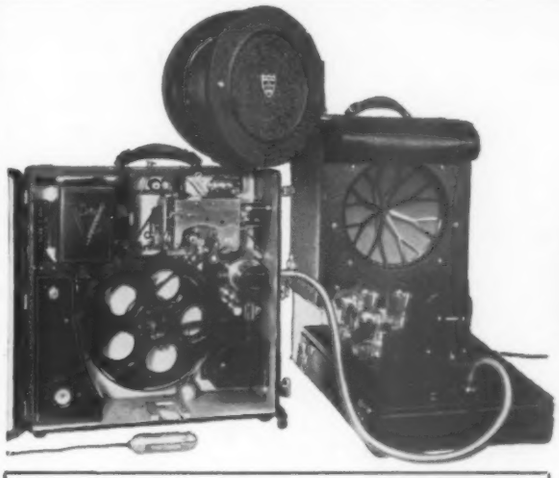
We ship from your nearest possible distributor at his regular rates.

We serve entire U.S.

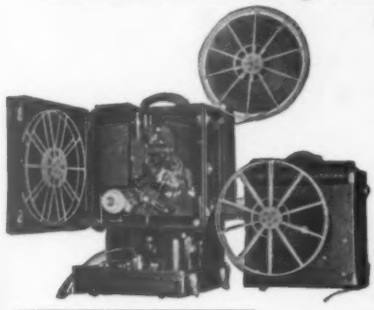
Send 35c stamps for the 1935 illustrated film handbook.

INTERNATIONAL EDUCATIONAL PICTURES, INC.
40 Mt. Vernon St., Boston 8 W. 40th St., N.Y.C.

The DeVry Line Is Complete
Models for any size auditorium or classroom

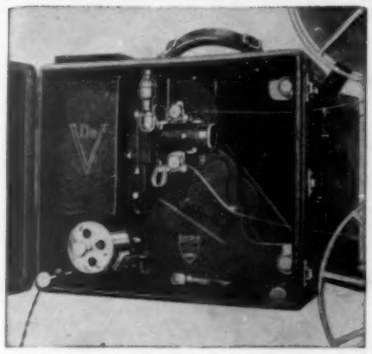


The DeVry 35mm Sound-on-Film Unit—suitable for large auditoriums and classrooms. Enables schools to use theatrical releases.



DeVry 16mm Sound-on-Film Unit—for auditorium and classroom use.

35 mm Sound
16 mm Sound
also
SILENT CAMERAS
AND PROJECTORS



DeVry 16 mm. Silent Projector
Can be changed quickly for sound.

Many schools make this equipment pay for itself and raise other school funds. Write for convincing letters from schools that have done this. Smaller schools can also secure DeVry Equipment in this manner. Write for details.

See November Educational Screen for description of New DeVry Spring Steel Reel — 1200 and 1600 ft. capacity.

Herman A. DeVry, Inc. Dept. G
1111 CENTER ST., CHICAGO 347 MADISON AVE., NEW YORK

From Motion Picture "Stills"

8"x10" PHOTOGRAPHIC FLAT PICTURES or LANTERN SLIDES

in Balanced Units are now available

They recreate and vitalize these Periods with Historic Accuracy

OLD WORLD HISTORY	AMERICAN HISTORY
Arabian Desert Life and Culture	The Pilgrims
Ancient Egyptian Life	American Revolution and Organization of Government
Roman Life	Frontier Life (Daniel Boone Period)
The Vikings	Westward Movement
Feudal Life	Slave Life and Abraham Lincoln
Elizabethan England	
French Revolution	

Complete with Teachers' Guides @ $8.25 per Unit.

Visual Directors, Superintendents, Social Science and History Teachers should have our illustrated catalog.

PHOTOGRAPHIC HISTORY SERVICE
5539 Hollywood Blvd. — Hollywood, Calif.

Sound Quality Picture Quality

See It --- Hear It

35 mm. Standard Film

You buy it strictly on merit

$175 DOWN

and 19 equal small monthly payments.

No interest

No Carrying Charges

FREE Demonstration

One Year Guarantee

Write today for full details.

COMPARE The New EDUCATOR with any equipment selling for $1000 or more.

May be used with additional speakers.

THE HOLMES EDUCATOR
HOLMES PROJECTOR CO.
1813 Orchard Street Chicago

Among the Magazines and Books

(*Concluded from page* 18)

Club work often reveals a proclivity for a subject that becomes a major in High School and College. Some museums run motion pictures daily during the summer. It has been discovered that visitors study cases of exhibits when less crowded with objects. In some museums, smaller exhibits are being rotated, only a part being exhibited at one time.

There is a psychology of labelling museum objects. Labels not conforming often do not attract visitors. The Philadelphia Commercial Museum has found that a twenty-four-point bold face type prevents smudge on the glass of the cases. Extensive labelling is necessary for children, always telling them what they wish to know.

Minnesota Journal of Education (November, '34) "Minnesota Background History Visualized," by Donald K. Lewis.

A new exhibition of history in models in the Museum of the Minnesota Historical Society. This is the oldest institution in the state, having been incorporated in 1849. By means of casts and sample materials, the geological history and the natural resources of Minnesota are represented. The period of glaciation is visualized, four ice sheets carving out thousands of beautiful lakes in this scenic region. In the deposits, made by the glaciers, are to be found remains from the life of early man.

Educational Outlook (November, '34) "Children's Museums and Exhibition of Work in Soviet Russia," by Jacob Meksin.

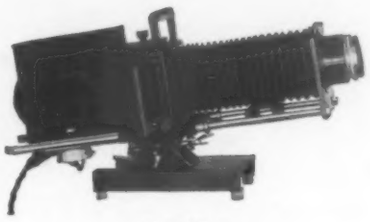
Believing that general museums were not well adapted to children, a group of Moscow educators, eight years ago, began an organization of exhibits and arranged activities for children. Clay animals are made in response to a challenge from a sculptor, papier-mache toys are made to take home, and animal masks are cut out for plays. One exhibit was held in a worker's club, the Moscow Printing Trust having provided a printing press, lithographing press, and a cylinder that the children might learn the process of printing the books which they use in the school. The article is exhaustive and rich with interesting and full detail concerning the management of living exhibits.

Industrial Arts and Vocational Education (December, '34) "Pottery and the Potter's Wheel," by R. H. Jenkins, Humboldt State Teachers College, Arcata, Calif.

"The line suggested here may be used as a regular eighth-grade and high school project, and as a hobby." Any handy boy can build and operate this wheel and "throw pieces" upon it. Full illustrations clarify construction and processes. The description is detailed and comprehensive. We believe this is an easy challenge for any intelligent boy.

SEE THE *Newest* IN PROJECTION APPARATUS!

TO meet your teaching and projection requirements perfectly we build many models of Delineascopes, each designed for use under specific conditions. Our projection experts will be pleased to visit with you at our Booth No. I-6 and help you select, from the variety of models in our exhibit, the correct Delineascopes for your specific needs.



MODEL D

For glass slide projection only. Can be equipped to project filmslides and micro-slides. Ideal for daily classroom requirements.

MODEL VA

Combination lantern for projection of opaque material and glass slides. Gives 50% greater illumination on the screen than former models.

MODEL B

Allows the instructor to sit at the desk, facing the class, and operate the lantern. The picture is projected "over head" in full view of the class.

VISIT OUR BOOTH NO. I-6
N. E. A. CONVENTION
ATLANTIC CITY AUDITORIUM

Spencer Lens Company
BUFFALO NEW YORK

SILENT PROJECTORS:

We have the finest 500 watt 16mm., silent projectors manufactured, priced from $85.00 up; write to us! Also 200 watt projectors as low as $29.50 . . . every one a brand new model!

SOUND-ON-FILM PROJECTORS:

The very best 500 watt and 750 watt 16mm. Sound-on-film projectors priced from $275.00 up—write to us—also Sound-on-film 16mm. projectors as low as $195.00 . . . every one a brand new model!

CAMERAS, SCREENS, ETC.:

CAMERAS: All makes and all prices from $35.00 up to several hundred dollars—both new and also slightly used!

SCREENS: We have all makes in glass beaded, etc., from $7.20 for the 30"x40", up to $80.00 for the largest auditorium size glass-beaded screens.

WRITE TO US, WE WILL SAVE YOU MONEY!

Sunny Schick

National Brokers Cinemachinery & Photographic Equipment
407 W. WASHINGTON FORT WAYNE, INDIANA

A New Motion Picture

Looking Through Great Telescopes

The Greatest of Educational Films

Scientific cooperation of Dr. Oliver J. Lee, Director Dearborn Observatory, Professor of Astronomy, Northwestern University.

Reels: 1, Seeing the Sun; 2, Going to the Moon; 3, From Mercury to Mars (including Asteroids and Comets); 4, Jupiter, Saturn and Beyond; 5. The Pathway of the Gods, The Milky Way; 6, The Depths of Space, The Exterior Galaxies.

The motion picture that should be shown and used in every school.

16 mm. and 35 mm., safety film.

Descriptive circular on request.

ARANEFF FILM ASSOCIATES

Spoor and Ahbe (S & A) Productions
1345 ARGYLE STREET, ESSANAY STUDIOS
CHICAGO, ILLINOIS

Among the Producers

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

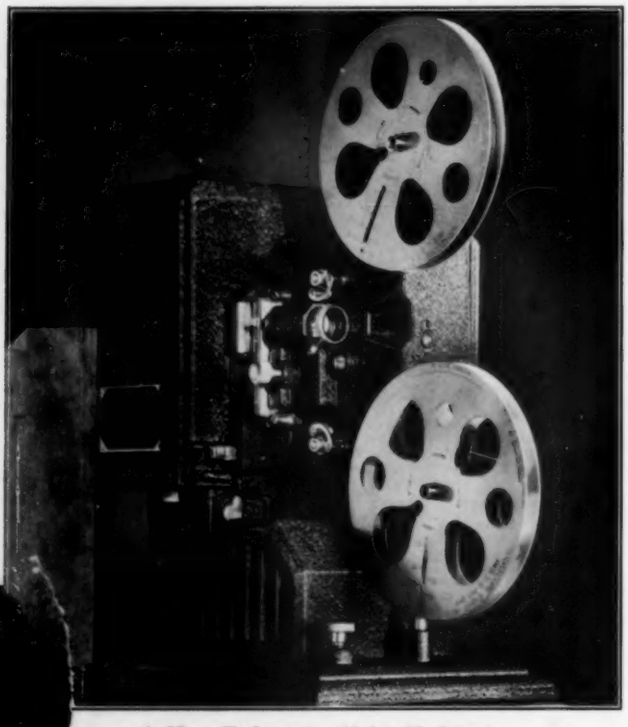
Single Exposure Device

A new accessory for the Leica camera is announced by E. Leitz, Inc., New York City. The Single Exposure Film Holder is a thin metal device which holds a strip of standard 35mm film of from two to three inches long. This carrier slips into the regular Leica camera and makes possible the exposing of a single negative. To make single exposures in this manner, the camera is of course loaded and unloaded in a darkroom, and the device is intended primarily for testing purposes, which it serves admirably well.

This single exposure apparatus is not to be confused with the "Oligo" Single Exposure Camera, which is a complete camera in itself. The device is for use in any standard model Leica camera, and sells for $1.50. Many amateurs are interested in making only one exposure and this device makes this possible with the Leica without resorting to alternations of any kind.

New Kodascopes Eight

Brilliancy predominates in the new Kodascopes Eight announced by Eastman Kodak Company. The new Model 40, which replaces Model 25, contains a 200-watt lamp instead of the 100-watt lamp of its predecessor, yet is priced the same. The new Model 80, which supersedes the Model 60, besides greater brilliancy supplied by its 300-watt lamp, embodies a number of interesting innovations among which are sturdy die-cast lamphouse of fluted design that makes for cooler projection, and an attractive pebbled finish.



A New Kodascope Eight, Model 80

New Geography Aids

A series of Geography Lantern Slides have recently been put into production by Eye Gate House, Inc., New York City. Among the subjects covered by the seventeen sets are the following: Milk and Milk Products, Plant Foods Grown at Home, Soils, Study of a Farm, Vegetable Foods Obtained from Warmer Countries, Meat Products, Mineral Foods, Preparation of Food, Clothing, How We Are Sheltered, Fuel, Light, Land Forms, Water Forms, Transportation; and Communication.

An Innovation in 16 mm. Projectors

Filmo Model 129, just announced by Bell & Howell, is entirely different in appearance from any other movie projector. It has a low center of gravity, achieved by a low "streamlined" base, and a new "fore and aft" placing of the reels—a very desirable feature, especially in view of the fact that the projector accommodates 1600-foot reels which permit a one-hour program without a stop for rethreading.

This projector comes in two types—one being a no-resistance type, using a Cooke 2-inch lens and a 750-watt lamp operating directly from the line current; the other having a variable resistance unit and voltmeter used in connection with a 100-volt 750-watt lamp. This type employs the extremely fast 2-inch F1.65 lens, increasing still further its effective illumination. As has been the case with many previous Filmo projector methods, efficient lamp economy is achieved by suiting the illumination to the need. In the no-resistance type, the 750-watt lamp may be replaced, when less illumination is desired, by a 300-, 400-, or 500-watt line voltage lamp. In the variable resistance type illumination may be reduced and lamp life prolonged by setting the resistance lever to give the lamp less than the normal 100-volt load. Or a 400-or 500-watt lamp may be used.

The feature of lens interchangeability, which has always been enjoyed by all Filmo projectors, is to be found also in the 129. The lens which is standard equipment with this model may be replaced instantly with any one of a full range of extra lenses to meet special requirements—from the wide-angle 0.64-inch for close quarters to the 4-inch for long throws.

Your Guide

to the Biggest and Best in Current Motion Pictures!

Now Available---

"SYMPHONY IN SIGHT"

A translation of Brahm's music into moving abstract figures. Brahms' Hungarian Dance rendered by a 150-piece orchestra is reproduced with a picturized fidelity that even a deaf person can recognize and enjoy.

THE EDUCATIONAL SCREEN in its review of this subject, says:—

"It is safe to say nothing has been done before like this production by Oscar Fischinger in Berlin, distributed in this country by Universal Film Exchanges. In a brief but exceedingly original film he seeks to give an interpretation in light as an accompaniment to a musical classic. The sound track gives a Brahms' Hungarian Dance, while the screen supplies a play of moving light forms, endlessly varied, perfectly synchronized, giving a visible counterpart of every audible effect produced by the orchestra. Tempo, rhythm, crescendo, climax, shading, phrasing—in short, all the elements involved in musical expression.

"All is continuous flow and incessant movement—swift, slow, straight, spiral, wavy, tremolo —always in the exact rhythm of the music. It is movement in harmonic accord with sound. It is rhythm made visible and vivid."

Write for Further Information

NON-THEATRICAL DEPARTMENT

UNIVERSAL PICTURES CORPORATION

ROCKEFELLER CENTER NEW YORK, N. Y.

A New Keystone Geography Unit

Unit No. 15 — *Life in the Middle Atlantic States*—has just been released.

This makes fifteen Keystone Geography Units now ready for delivery on orders.

Units Nos. 1 to 9 inclusive cover outstanding types of adjustment to living conditions throughout the world.

Units Nos. 10 to 15 inclusive cover ways of living in important regions of the United States.

Each unit includes a *Teachers Manual* prepared by the author, Zoe A. Thralls, of the School of Education, University of Pittsburgh.

All units are available in lantern slides — plain or colored — standard stereographs, or the new junior-size stereographs.

Any unit or units will be sent to responsible Directors of Visual Instruction on thirty days' approval.

Visit our exhibit at the February meeting in Atlantic City.

Keystone View Company

MEADVILLE, PENNA.

Here They Are

A Trade Directory for the Visual Field

FILMS

Araneff Film Associates (3, 6)
1345 Argyle St., Essanay Studios, Chicago
(See advertisement on page 25)

Bray Pictures Corporation (3, 6)
729 Seventh Ave., New York City

Eastin Feature Films (4)
(Rental Library) Galesburg, Ill.

Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)

Eastman Kodak Co. (1, 4)
Teaching Films Division
Rochester, N. Y.

Edited Pictures System, Inc. (1, 4)
330 W. 42nd St., New York City

Erpi Picture Consultants, Inc. (2, 6)
250 W. 57th St., New York City
(See advertisement on page 1)

Guy D. Haselton's TRAVELETTES
7901 Santa Monica Blvd., Hollywood, Cal. (1, 4)

Ideal Pictures Corp. (1, 4)
30 E. Eighth St., Chicago, Ill.

International Educational Pictures, Inc.
40 Mt. Vernon St., Boston, Mass.
(See advertisement on page 23)

Modern Woodman of America (3, 4)
Rock Island, Ill.

Pinkney Film Service Co. (1, 4)
1028 Forbes St., Pittsburgh, Pa.

United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.

Universal Pictures Corp. (3)
Rockefeller Center, New York City
(See advertisement on page 27)

Wholesome Films Service, Inc. (3, 4)
48 Melrose St., Boston, Mass.

Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

MOTION PICTURE MACHINES and SUPPLIES

Bell & Howell Co. (6)
1815 Larchmont Ave., Chicago, Ill.
(See advertisement on inside back cover)

Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)

Edited Pictures System, Inc. (1)
330 W. 42nd St., New York City

Erpi Picture Consultants, Inc. (2, 6)
(Western Electric Sound System)
250 W. 57th St., New York City
(See advertisement on page 1)

J. C. Haile & Sons (6)
215 Walnut St., Cincinnati, O.
(See advertisement on page 20)

Herman A. DeVry, Inc. (3, 6)
1111 Center St., Chicago
(See advertisement on page 23)

Holmes Projector Co. (3)
1813 Orchard St., Chicago
(See advertisement on page 24)

Ideal Pictures Corp. (1, 4)
30 E. Eighth St., Chicago, Ill.

International Projector Corp. (3, 6)
90 Gold St., New York City
(See advertisement on inside front cover)

Motion Picture Accessories Co. (3, 6)
43-47 W. 24th St., New York City.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

S. O. S. Corporation (2)
1600 Broadway, New York City

Sunny Schick (3, 6)
Fort Wayne, Ind.
(See advertisement on page 25)

United Projector and Film Corp. (3, 4)
228 Franklin St., Buffalo, N. Y.

Victor Animatograph Corp. (6)
Davenport, Iowa
(See advertisement on page 2)

Weber Machine Corp. (2)
59 Rutter St., Rochester, N. Y.
(See advertisement on page 19)

Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

PHOTOGRAPHS and PRINTS

Photographic History Service
5537 Hollywood Blvd., Hollywood, Cal.
(See advertisement on page 24)

SCREENS

Da-Lite Screen Co.
2721 N. Crawford Ave., Chicago
(See advertisement on page 21)

Alfred D. Hornstein
29 E. Madison St., Chicago, Ill.
(See advertisement on page 23)

Motion Picture Accessories Co.
43-47 W. 24th St., New York City.

Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

SLIDES and FILM SLIDES

Conrad Slide and Projection Co.
510 Twenty-second Ave., East Superior, Wis.

Eastman Educational Slides
Iowa City, Iowa

Edited Pictures System, Inc.
330 W. 42nd St., New York City

Ideal Pictures Corp.
30 E. Eighth St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.
(See advertisement on page 27)

Photographic History Service
5537 Hollywood Blvd., Hollywood, Cal.
(See advertisement on page 24)

Radio-Mat Slide Co., Inc.,
1819 Broadway, New York City
(See advertisement on page 22)

Scarborite Colors
Scarborough-on-Hudson, N. Y.
(See advertisement on page 20)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 25)

Teaching Aids Service
Waban, Mass.
(See advertisement on page 22)

Victor Animatograph Corp.
Davenport, Iowa
(See advertisement on page 2)

Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

STEREOGRAPHS and STEREOSCOPES

Herman A. DeVry, Inc.
1111 Center St., Chicago
(See advertisement on page 23)

Keystone View Co.
Meadville, Pa.
(See advertisement on page 27)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 21)

E. Leitz, Inc.
60 E. 10th St., New York City
(See advertisement on page 22)

Regina Photo Supply Ltd.
1924 Rose St., Regina, Sask.

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 25)

Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

16 MM. TITLES

J. C. Haile & Sons
215 Walnut St., Cincinnati, O.
(See advertisement on page 20)

REFERENCE NUMBERS

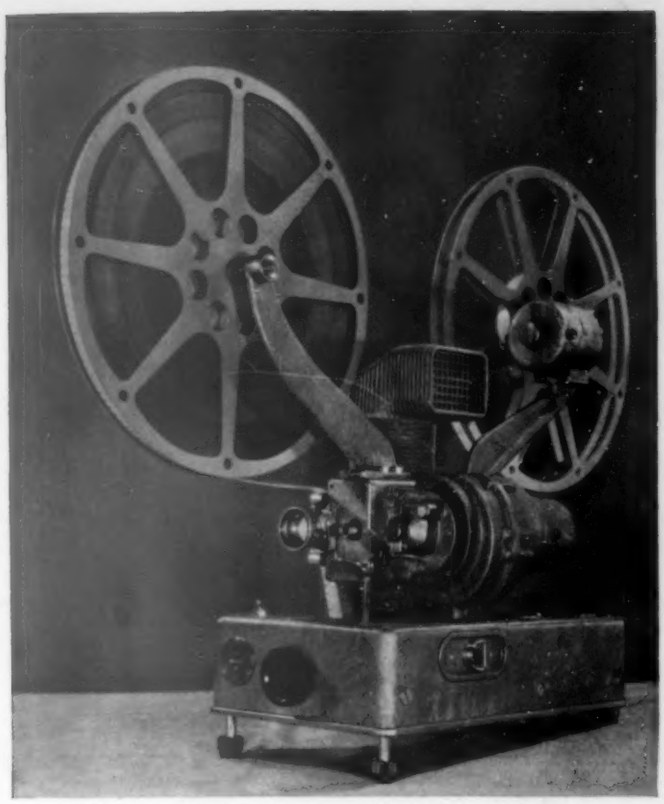
(1) indicates firm supplies 35 mm. silent.
(2) indicates firm supplies 35 mm. sound.
(3) indicates firm supplies 35 mm. sound and silent.
(4) indicates firm supplies 16 mm. silent.
(5) indicates firm supplies 16 mm. sound-on-film.
(6) indicates firm supplies 16 mm. sound and silent.

Continuous insertions under one heading, $1.50 per issue; additional listings under other headings, 50c each.

There is a

Filmo Projector

- *for every school need*
- *for every school budget*



Filmo Auditorium Projector, Model 130—1000-*watt*

Here's the new 1000-watt

Filmo 16mm. Projector

that does a 35mm. job

1000-watt lamp—the most powerful light source ever used in a 16 mm. projector. Variable voltage resistance unit and voltmeter give precise control of lamp voltage, and reduced illumination when desired.

New optical system—results in an illumination increase considerably greater than that attributable to the increase in lamp wattage.

Fast Cooke 2-inch F 1.65 lens, instantly interchangeable with others, from 0.64-inch to 4-inch, to obtain any desired picture size at any projection distance.

1600-foot film capacity—a one-hour show without a stop.

Low center of gravity—no accidental upsetting.

Electric governor, adjustable for 16- to 24-speed operation.

Film take-up by a separate motor which also provides power for rapid, automatic film rewinding.

Adequate cooling to keep the lamp at the proper temperature for economical use.

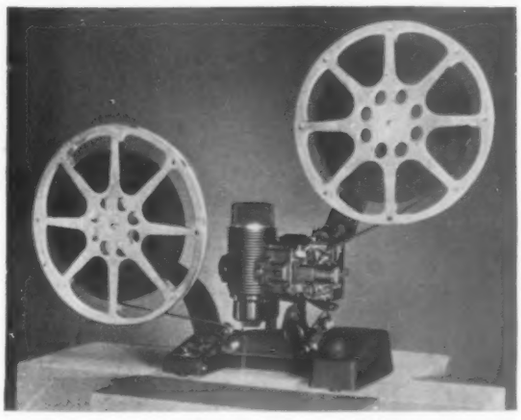
Film conditioning: film is cooled and humidified.

Two-way tilt, for high and low projector placements, simply by turning a knob.

Other features: Manual framer, pilot light, error-proof interlocking controls.

Basic Filmo film movement mechanism and traditional Filmo perfection of design and construction.

Price, $385. Case, $27.50.



Filmo 129 *Projector—750-Watt*

Two New 750-Watt Filmos

for all - around school use

The new Filmos 129-A and 129-B have streamlined bases, low center of gravity, and 1600-foot film capacity. They are supplied with 750-watt lamps, but take lower-powered lamps when less light is needed. Their standard 2-inch lenses are instantly interchangeable with others, from 0.64-inch to 4-inch, to meet varying requirements of picture size and length of throw. Filmo 129-A, with line voltage lamp and carrying case, $185. Filmo 129-B, with variable resistance, voltmeter, and case, $210.

Filmo R Projector

Ideal Classroom Projector at a New Low Price

At the new low price now offered by Filmo dealers, the Filmo R Projector becomes an even finer value for the school classroom. Has 500-watt line voltage lamp and is complete with clutch, reverse, manual framer, belt-driven power rewind, and carrying case. Get your dealer's price on this model before you buy.

BELL & HOWELL Filmo Personal Movie Cameras and Projectors
1817 Larchmont Ave., Chicago; New York, Hollywood, London (B & H Co., Ltd.) Established 1907.

25c

PROFESSIONAL RESULTS WITH AMATEUR EA[illegible]r

1935

Double
PRECAUTION

WHENEVER you order motion pictures that are to be projected without a booth, do these two things: (1) Specify Eastman Safety Film...the film that involves less hazard than so much newsprint paper. (2) Look for the protecting words, *Eastman ... Safety ... Kodak*, throughout the transparent margin of each reel before you show it. This double precaution will safeguard your audience, projectionist, and building. Eastman Kodak Company, Rochester, N.Y. (J. E. Brulatour, Inc., Distributors, New York, Chicago, Hollywood.)

EASTMAN
Safety Film

J. C. 215